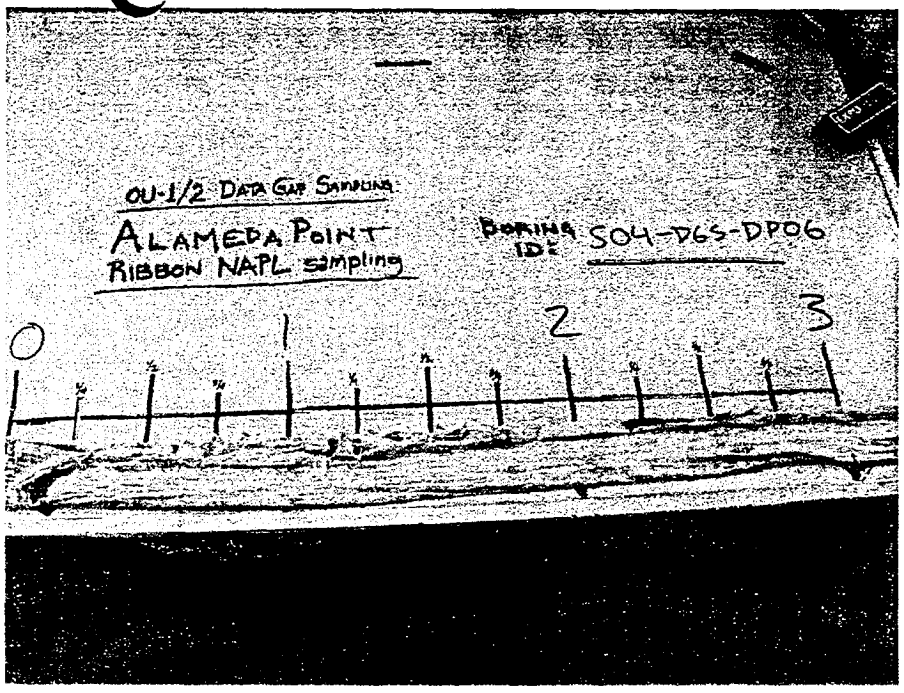
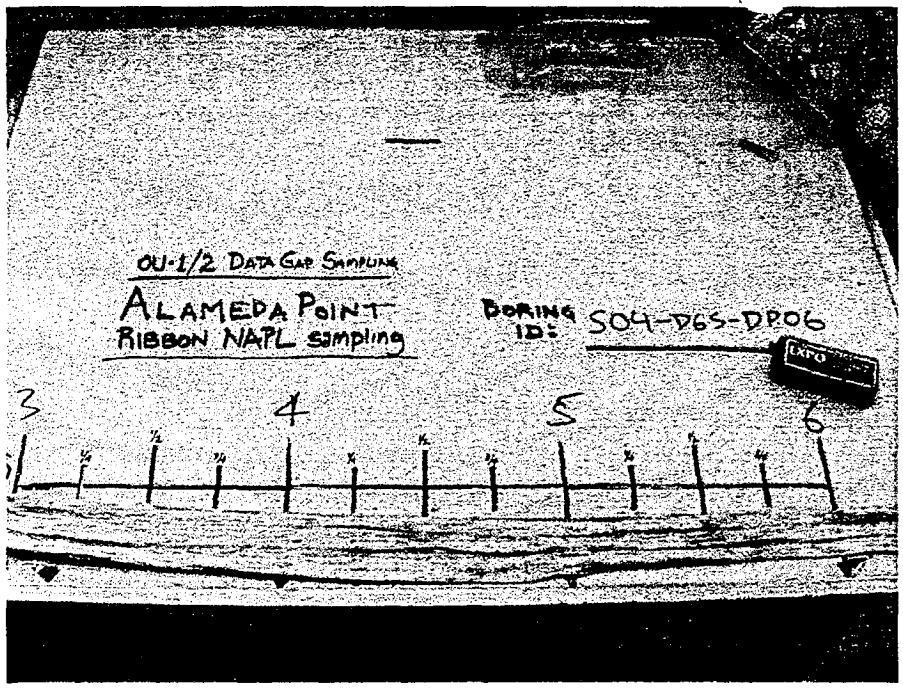
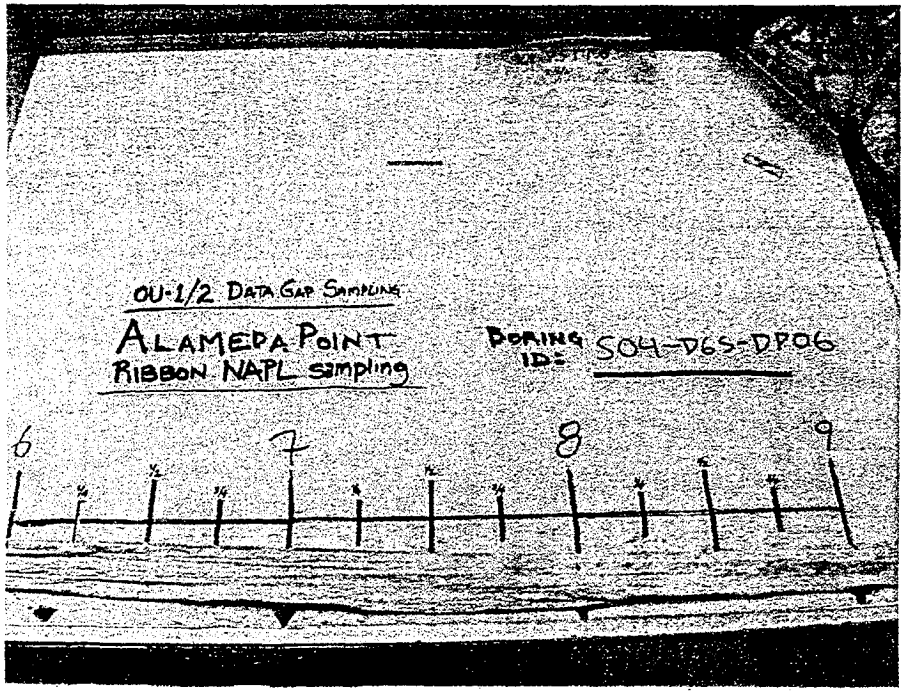
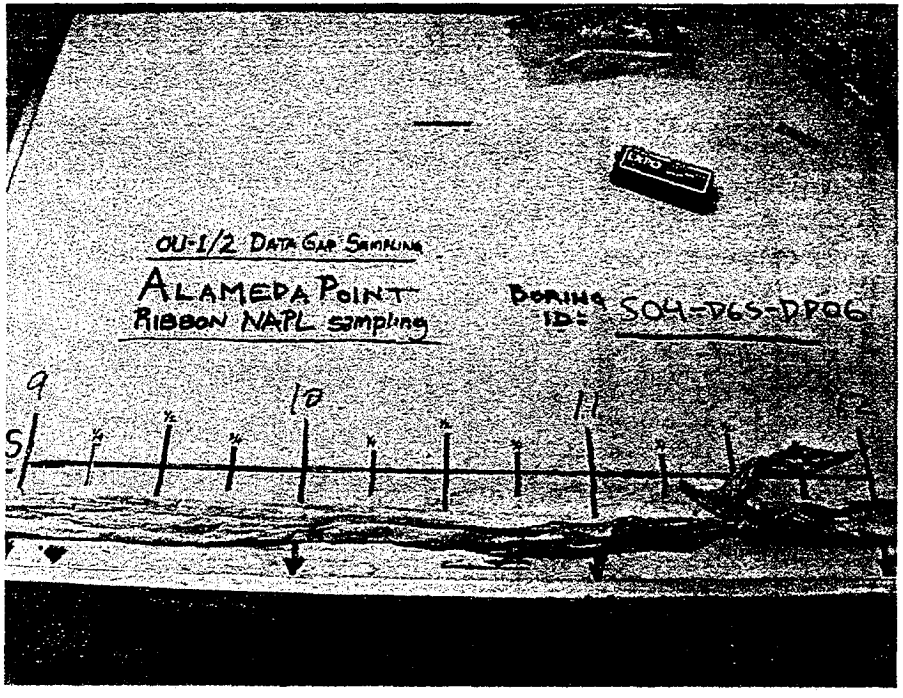
APPENDIX J
PHOTOGRAPHS OF RIBBON DNAPL SAMPLERS (RNS),
RNS RESULTS SUMMARY TABLE, AND
VISUAL INSPECTION REPORT FOR SUB-FLOOR AREA IN BUILDING 360
(49 Pages)









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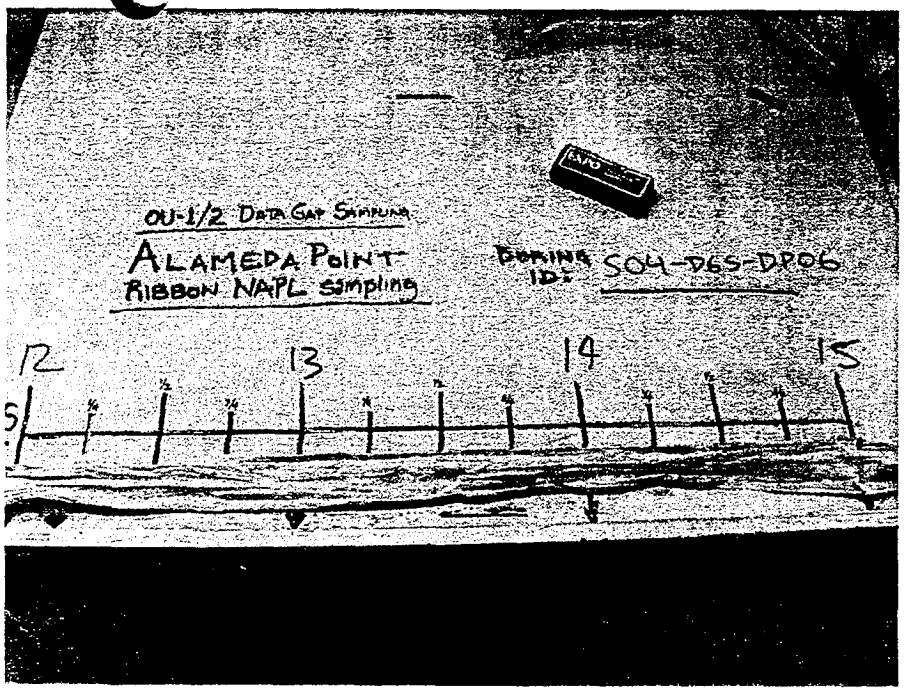

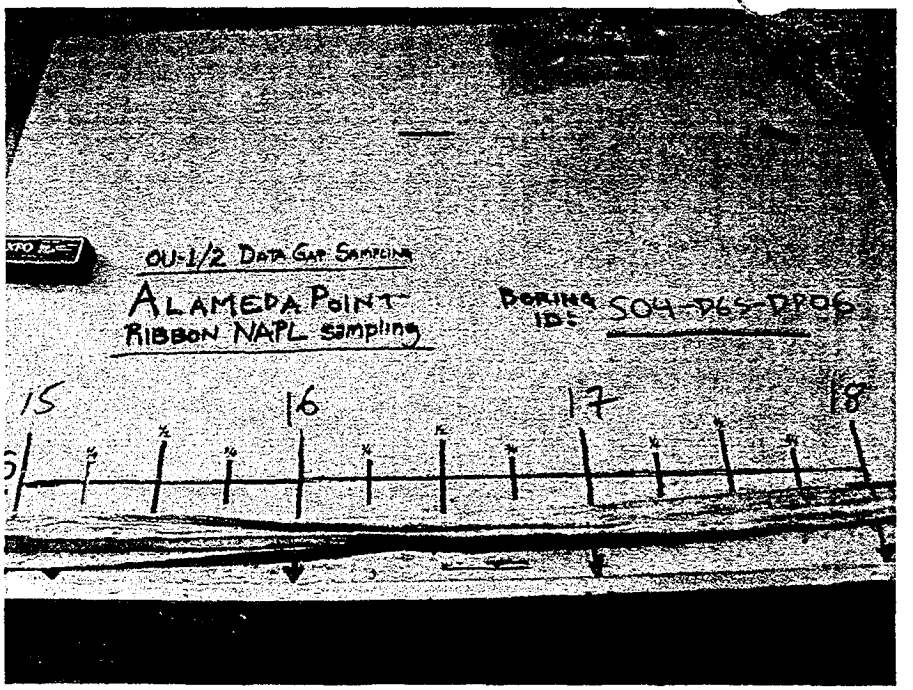

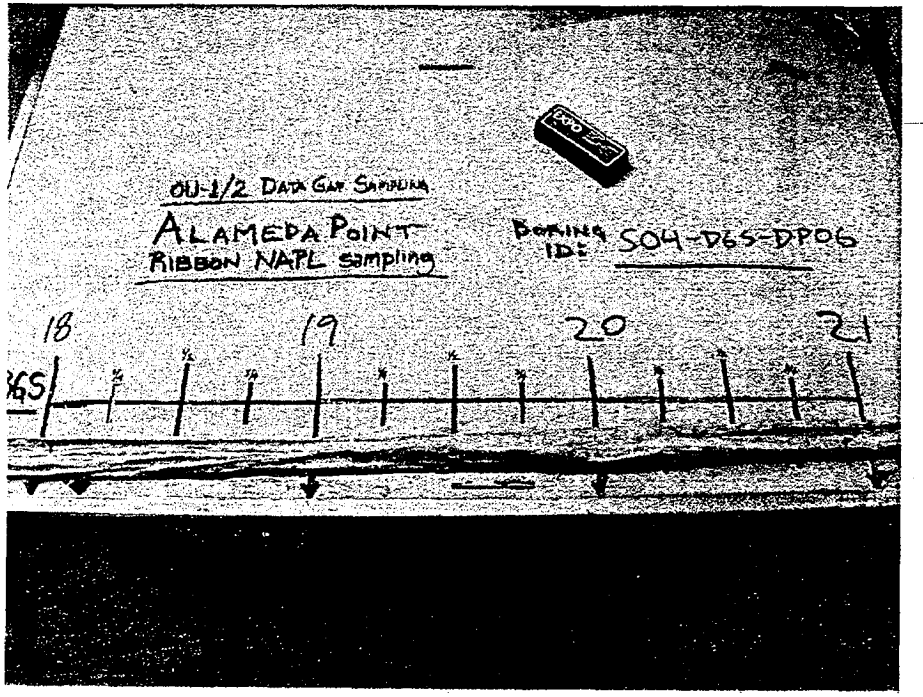

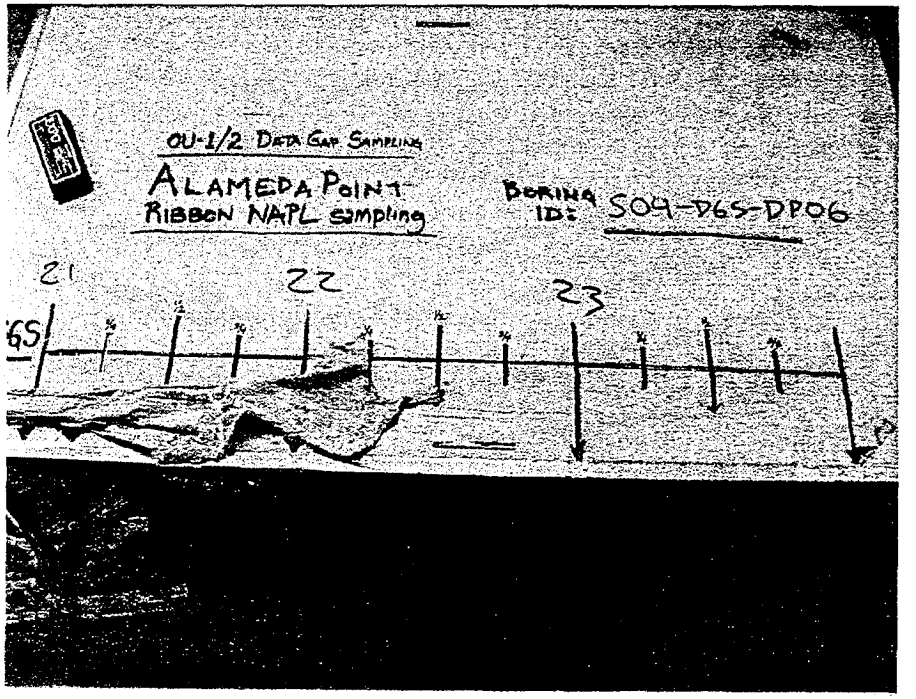

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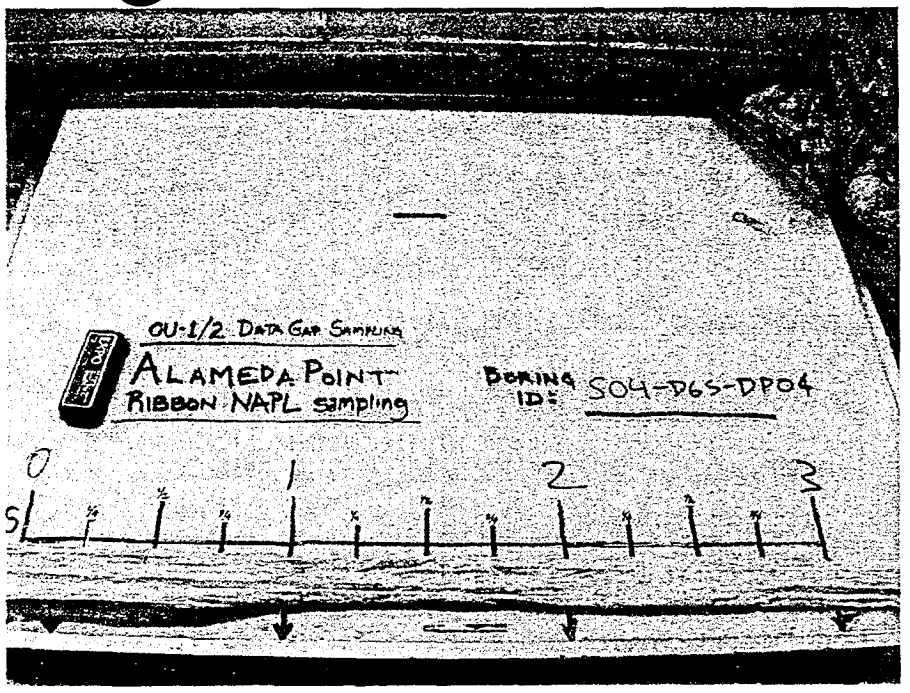

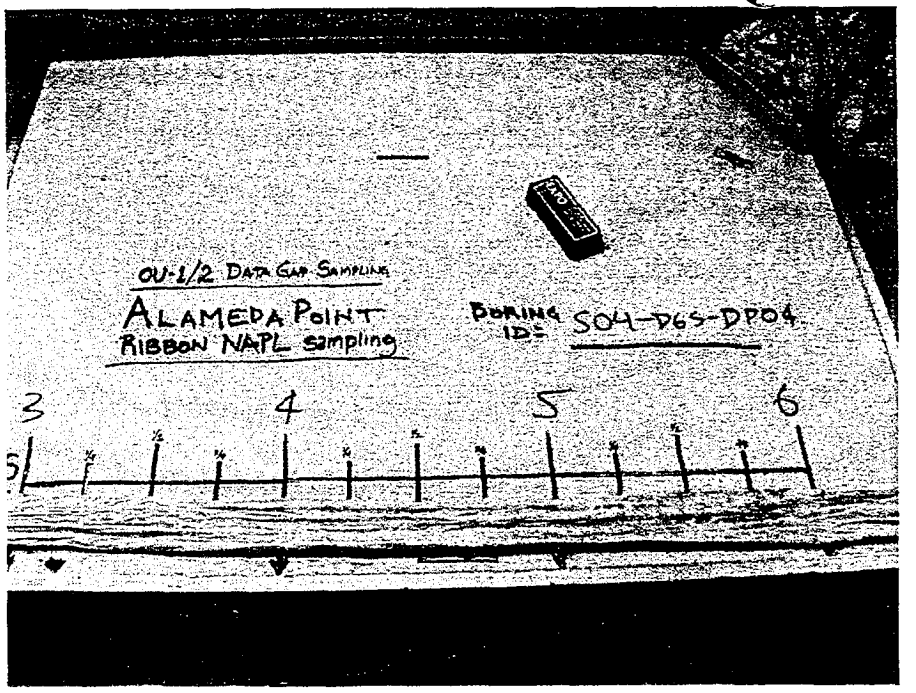

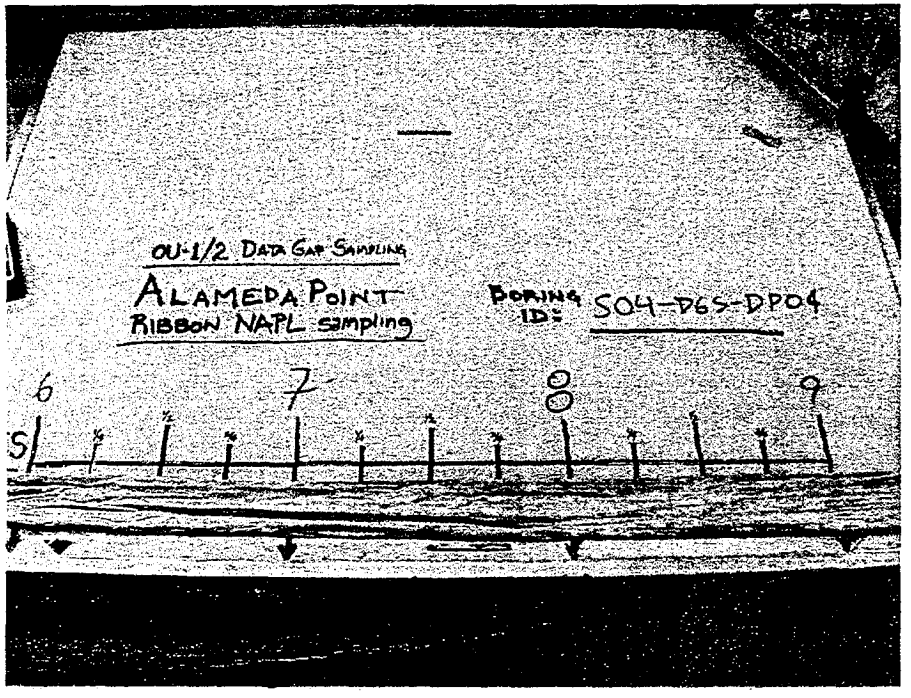

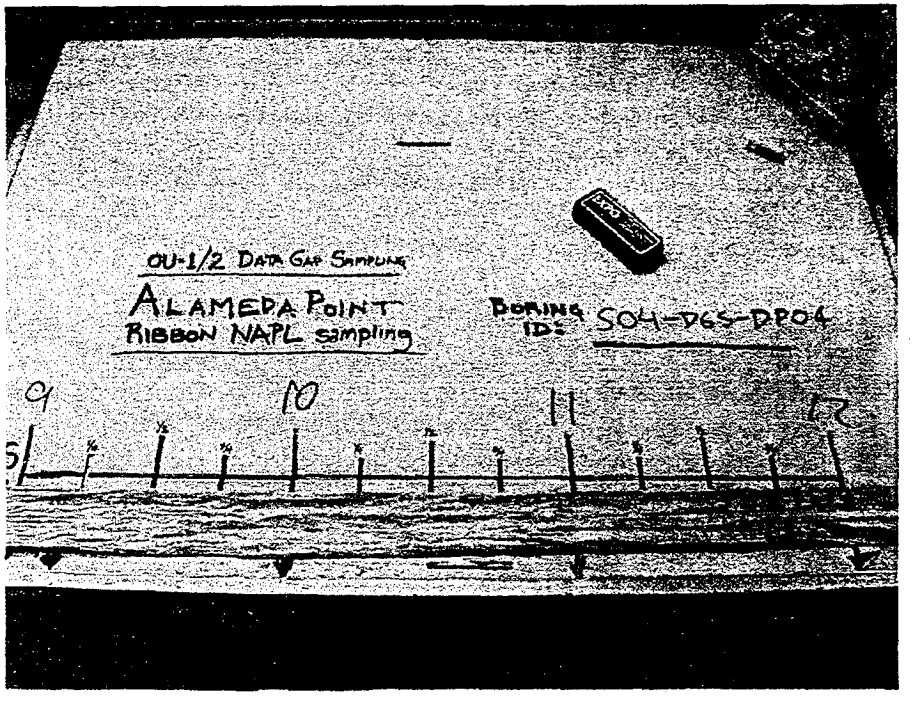

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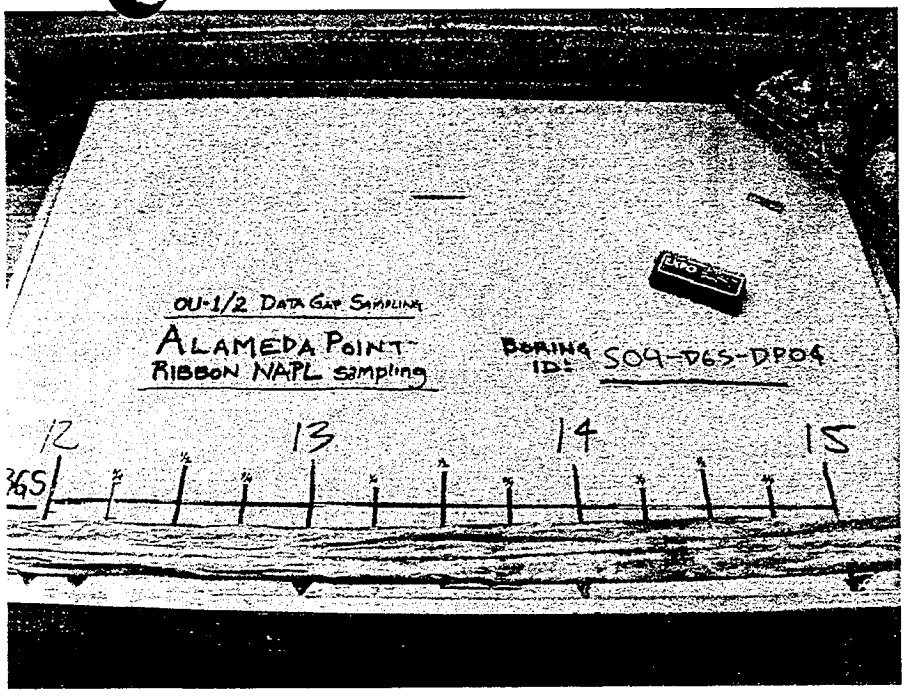

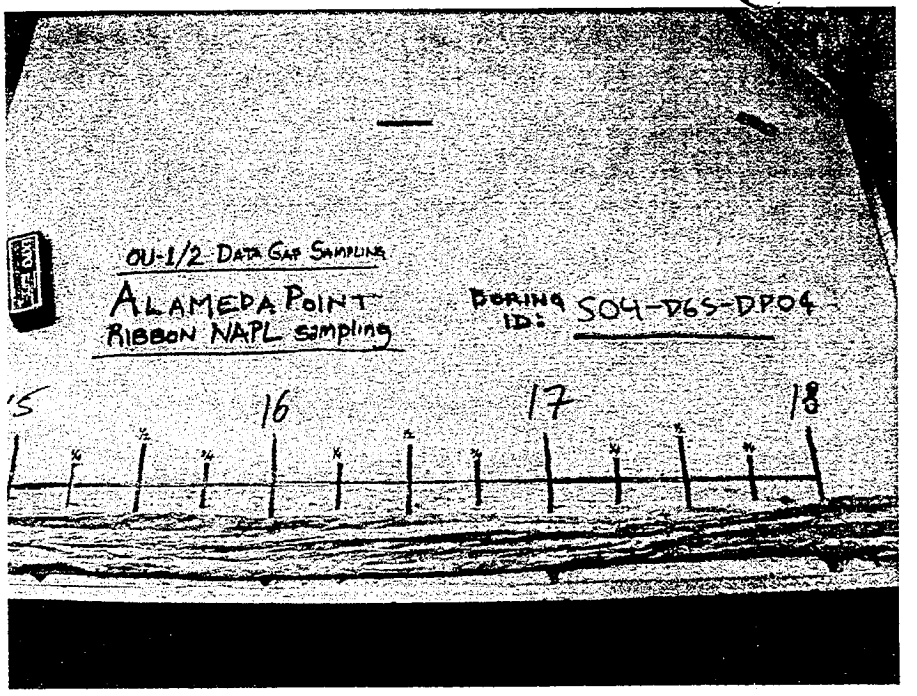

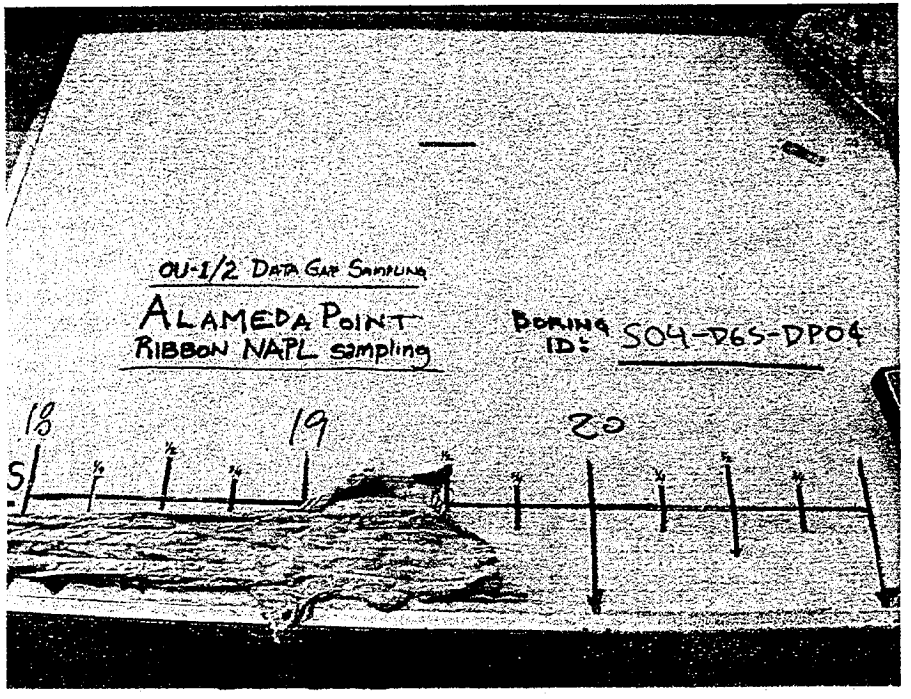

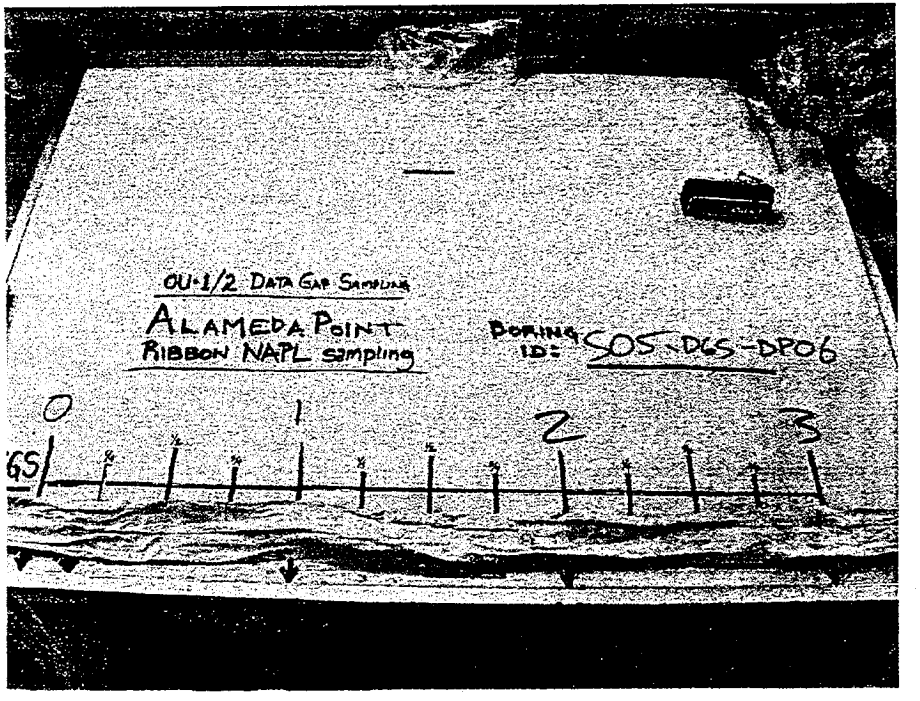

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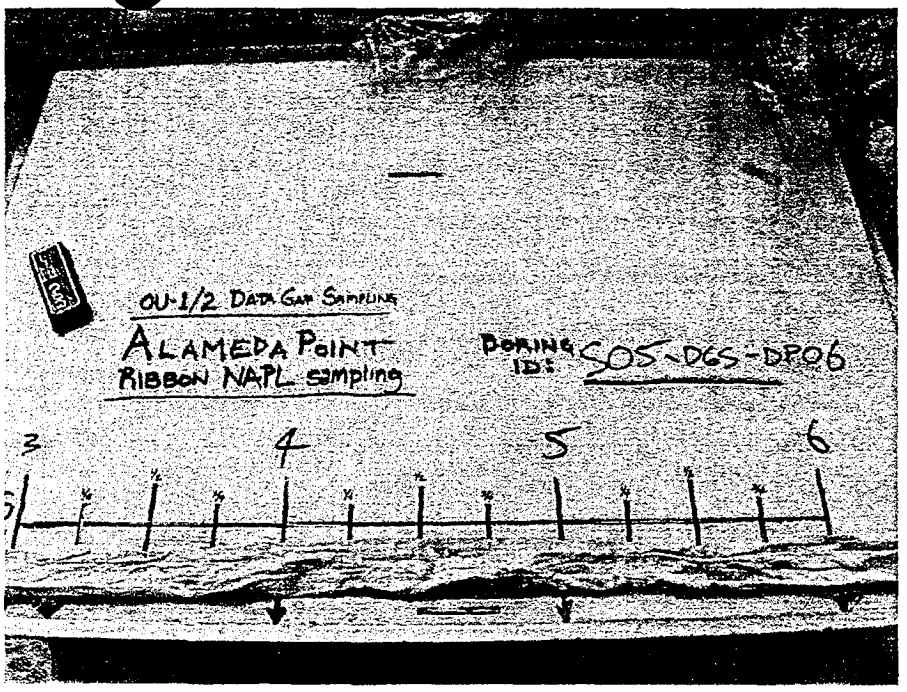

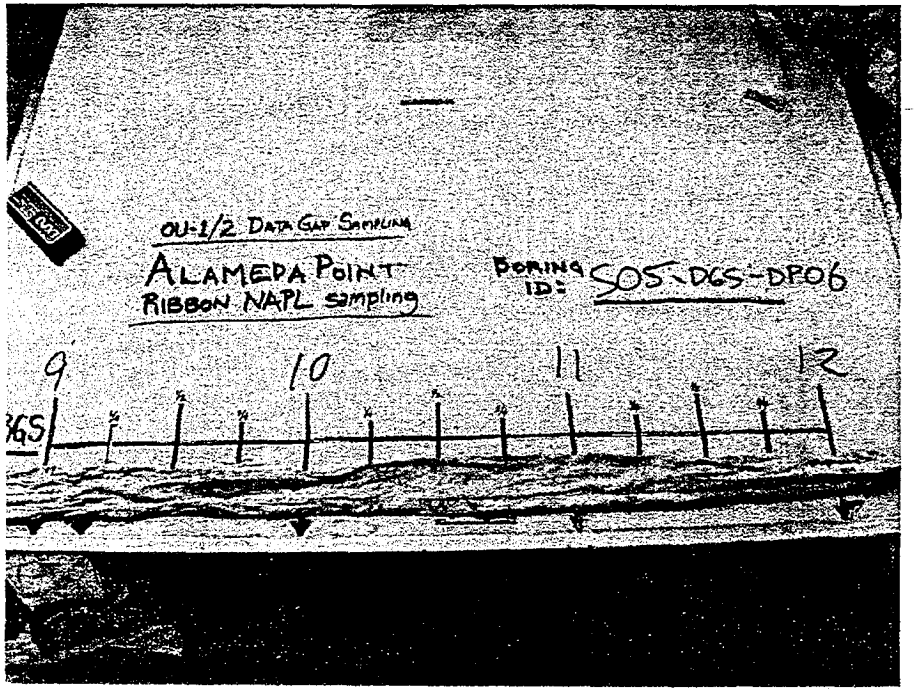

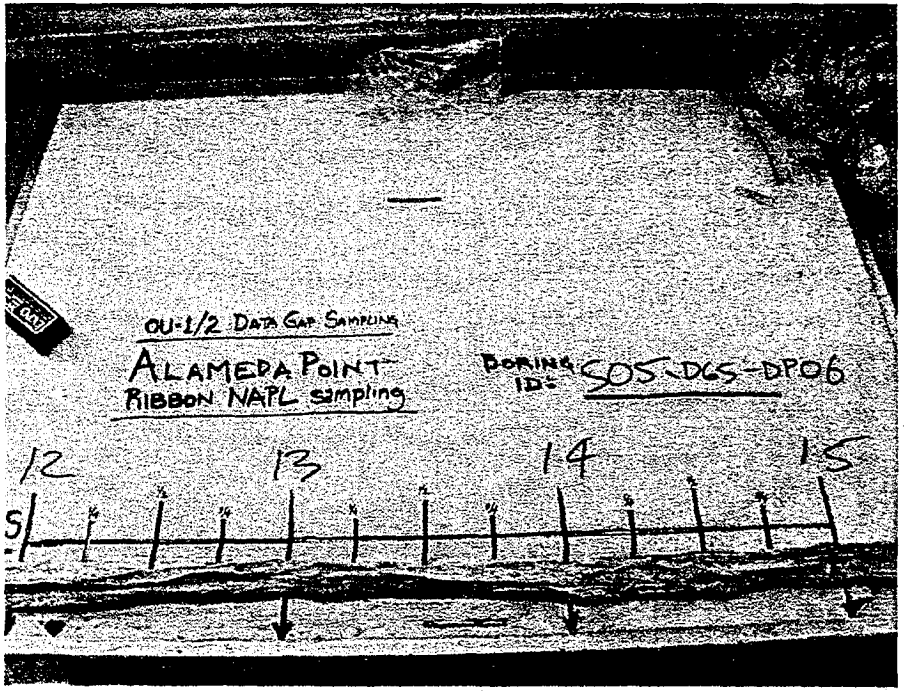

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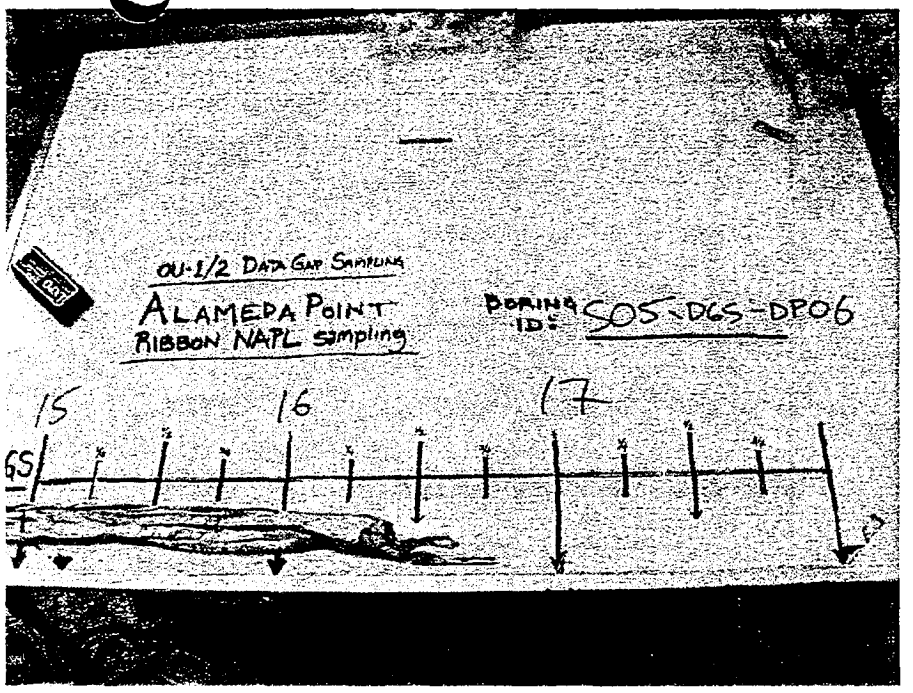
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RIBBON NAPL sampling
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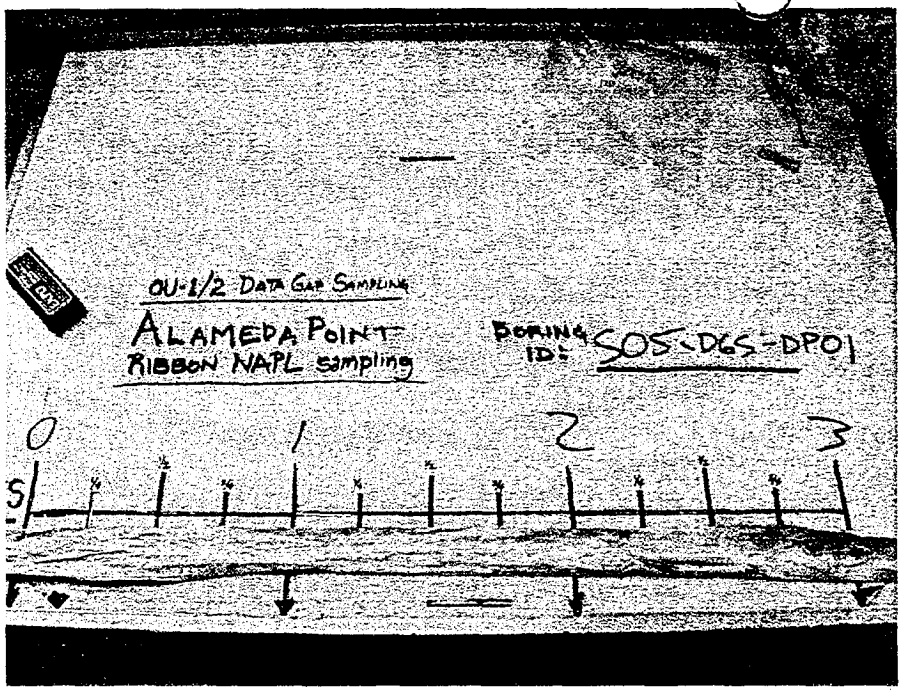
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RIBBON NAPL sampling
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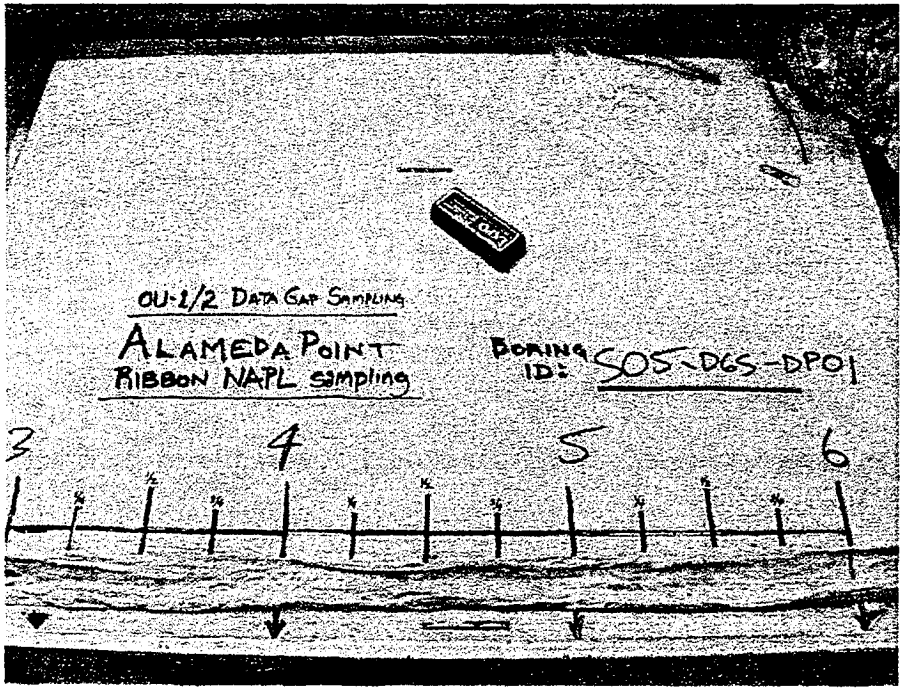
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ALAMEDA POINT
RIBBON NAPL sampling
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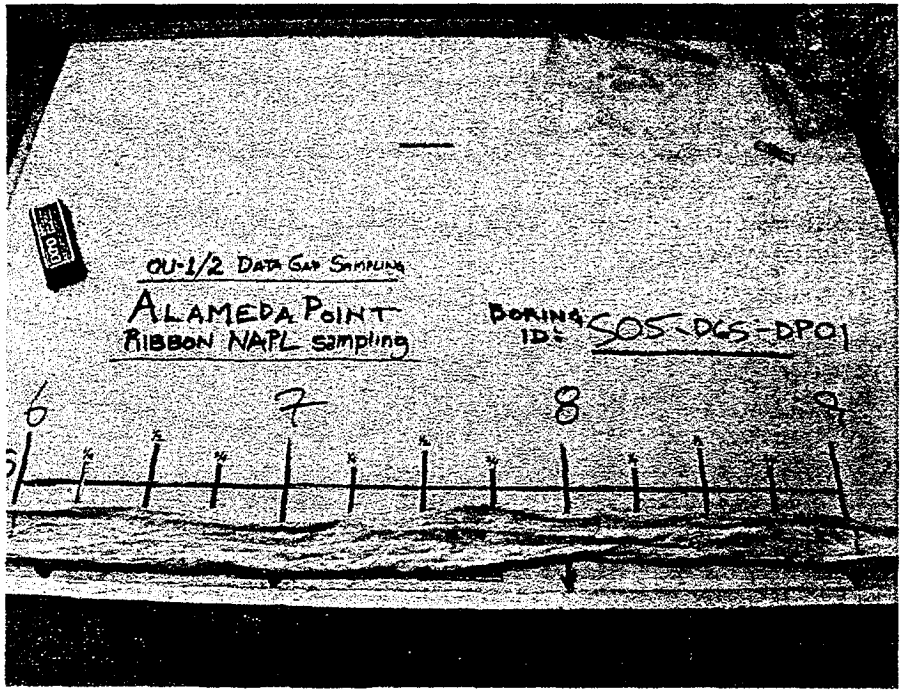
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ALAMEDA POINT
RIBBON NAPL sampling
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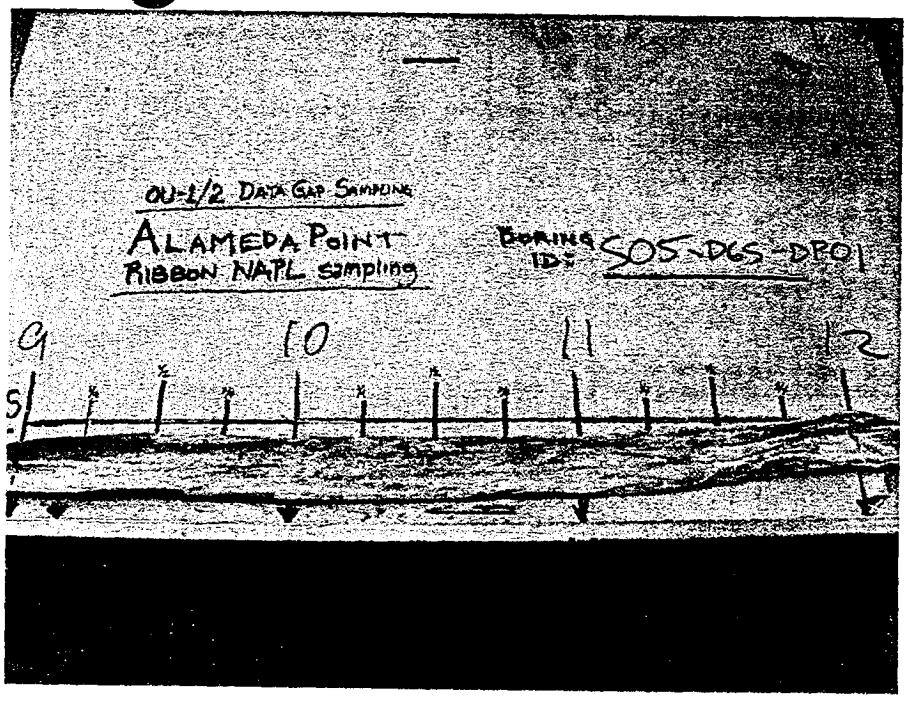

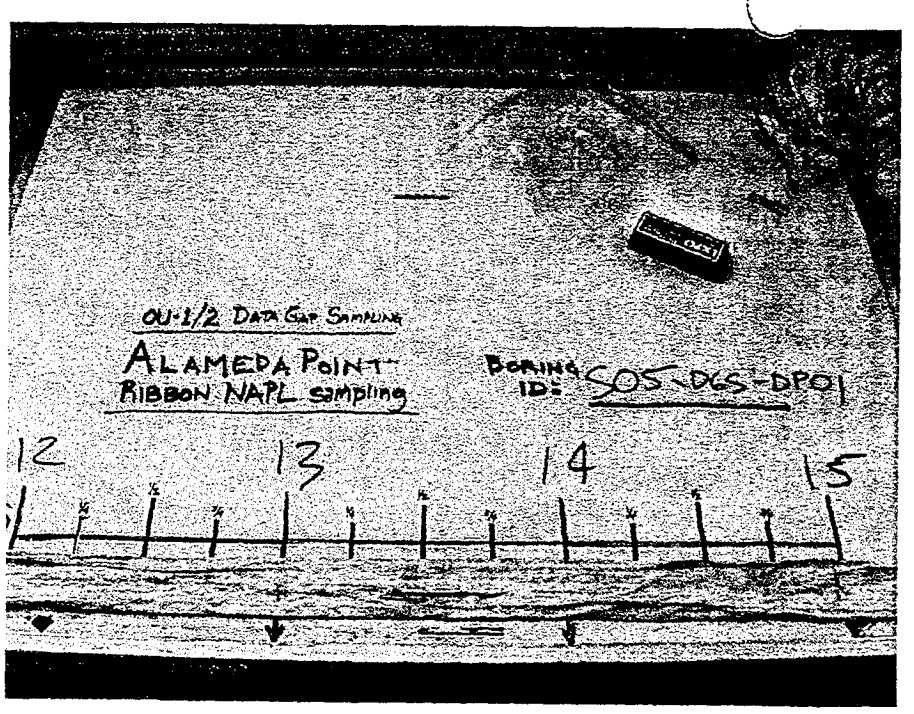

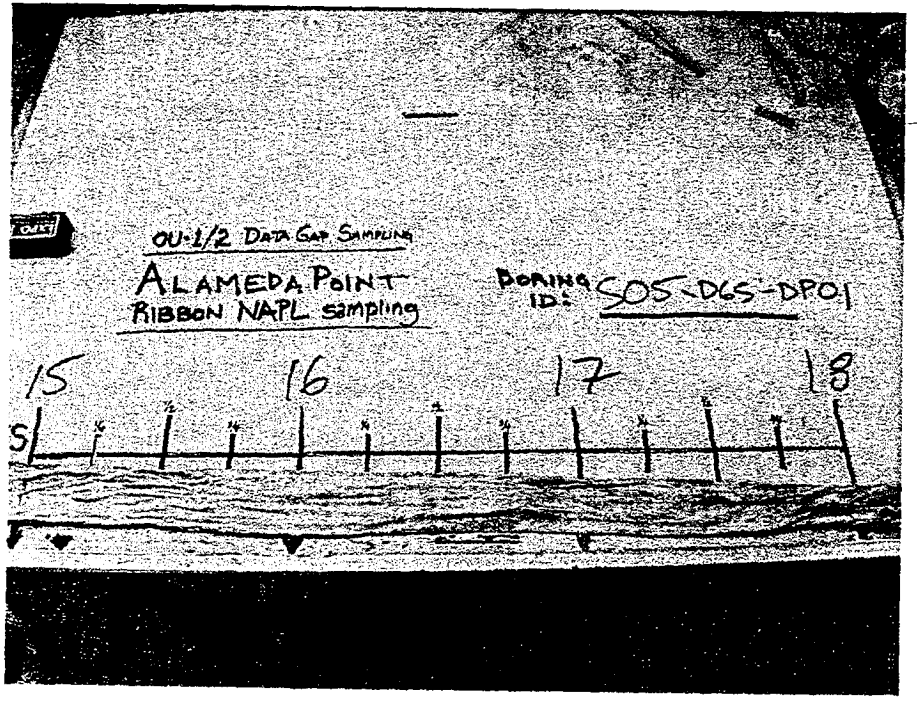

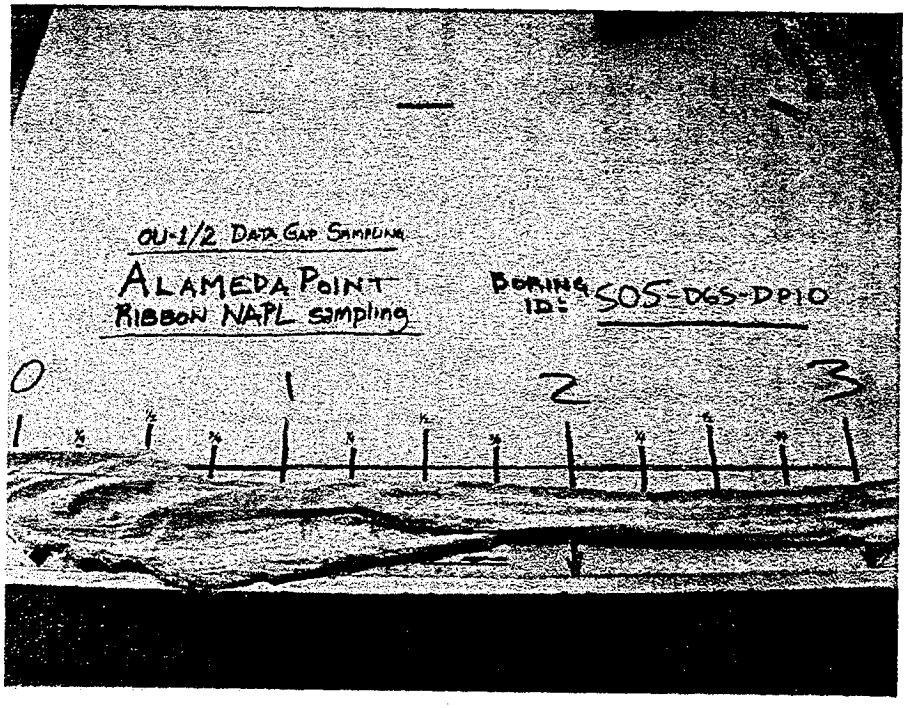

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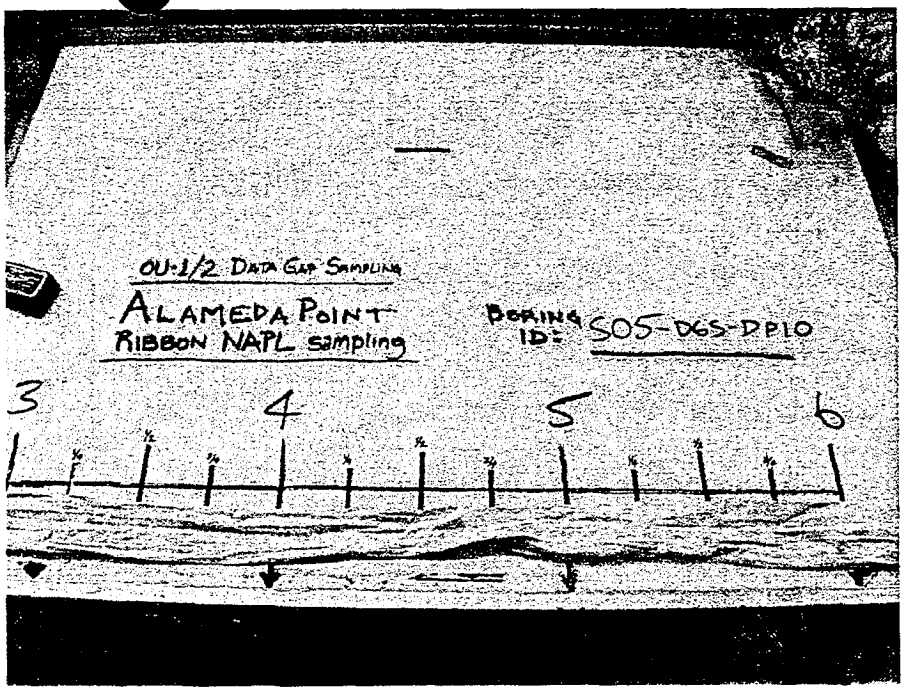
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Ribbon NAPL sampling
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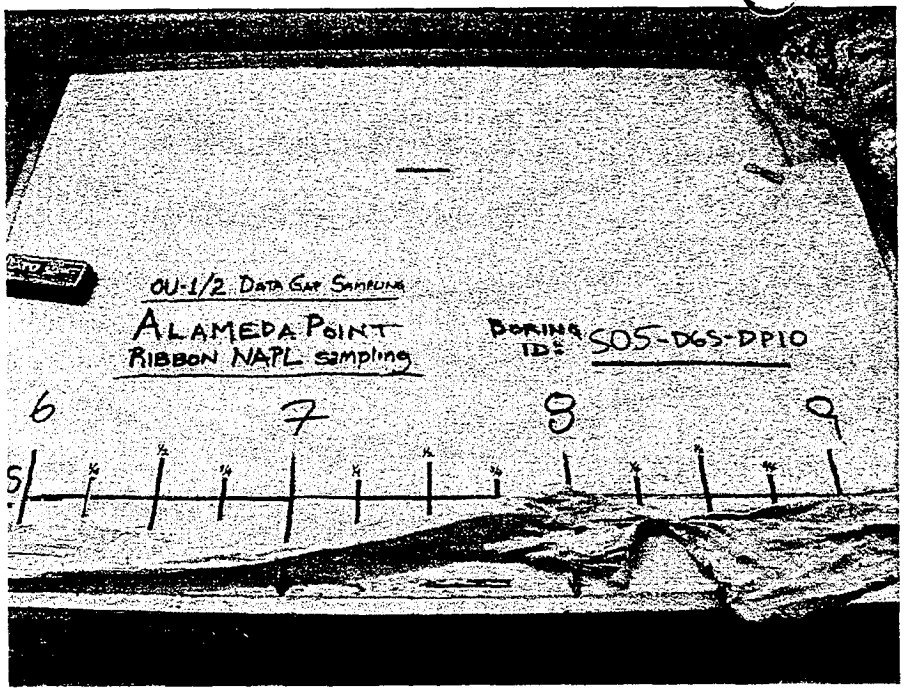
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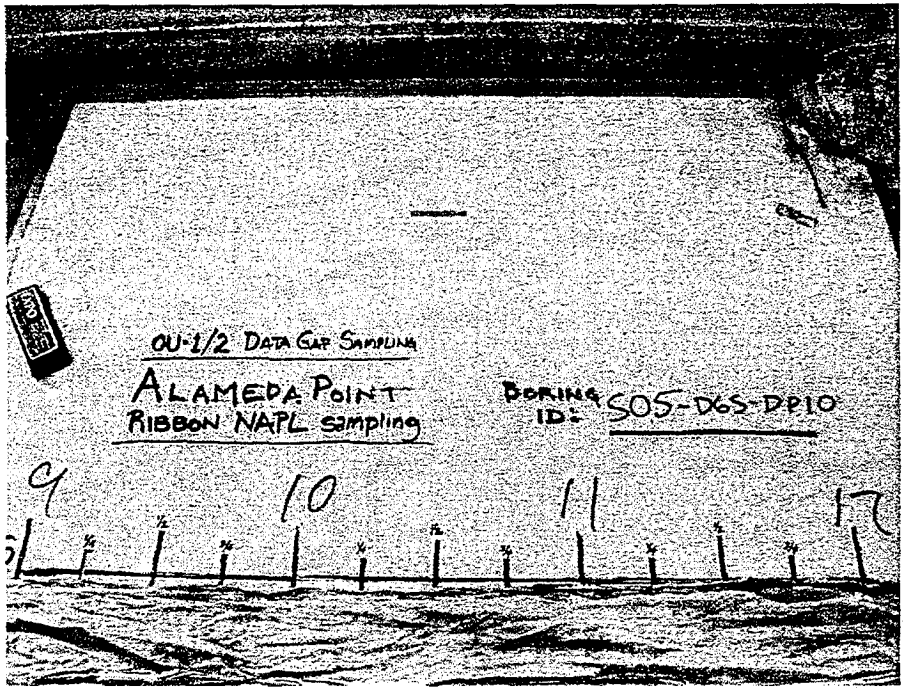
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Ribbon NAPL sampling
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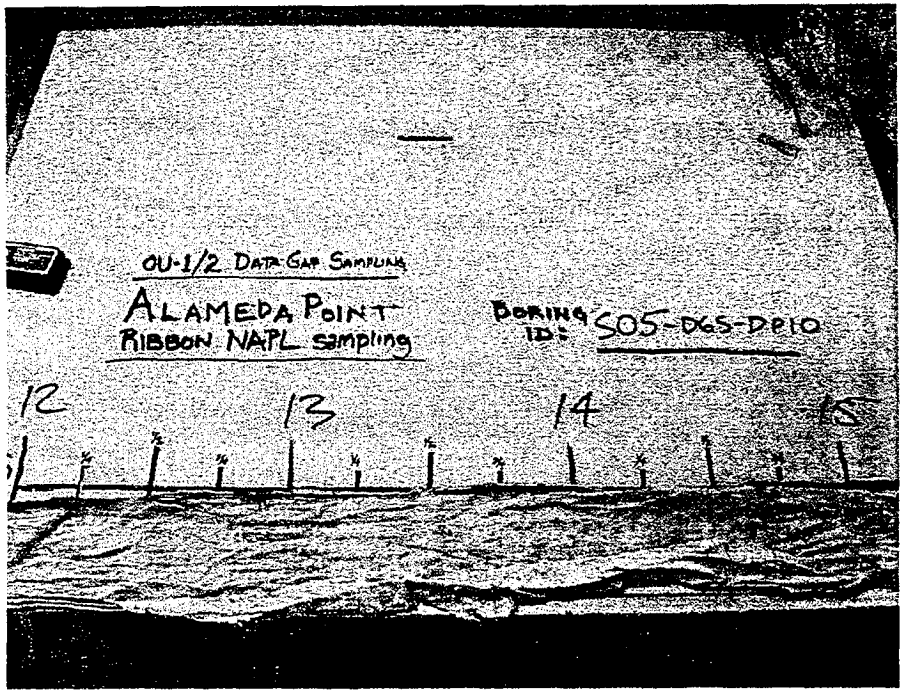
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Ribbon NAPL sampling
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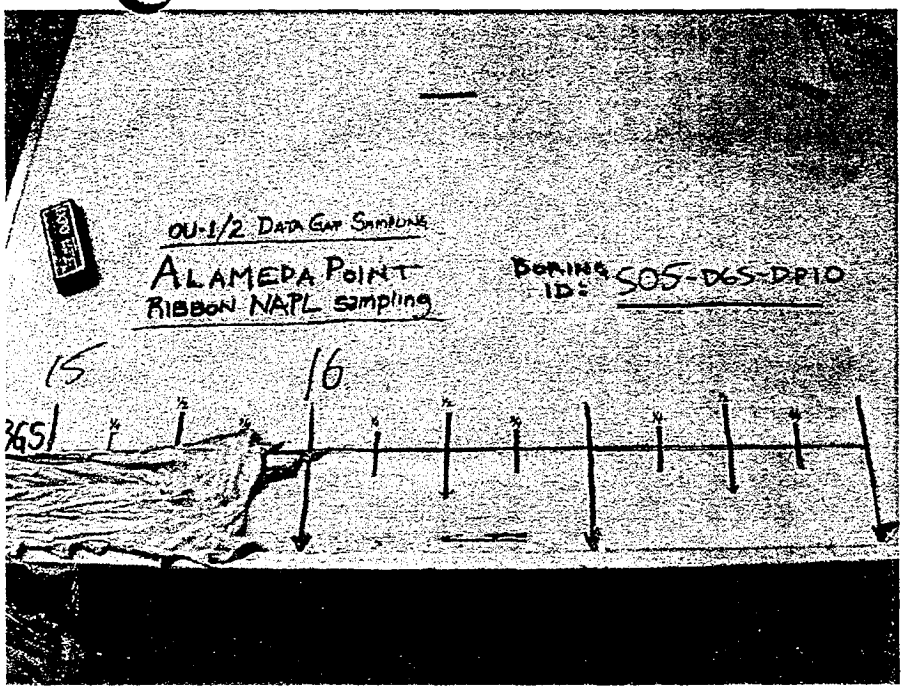

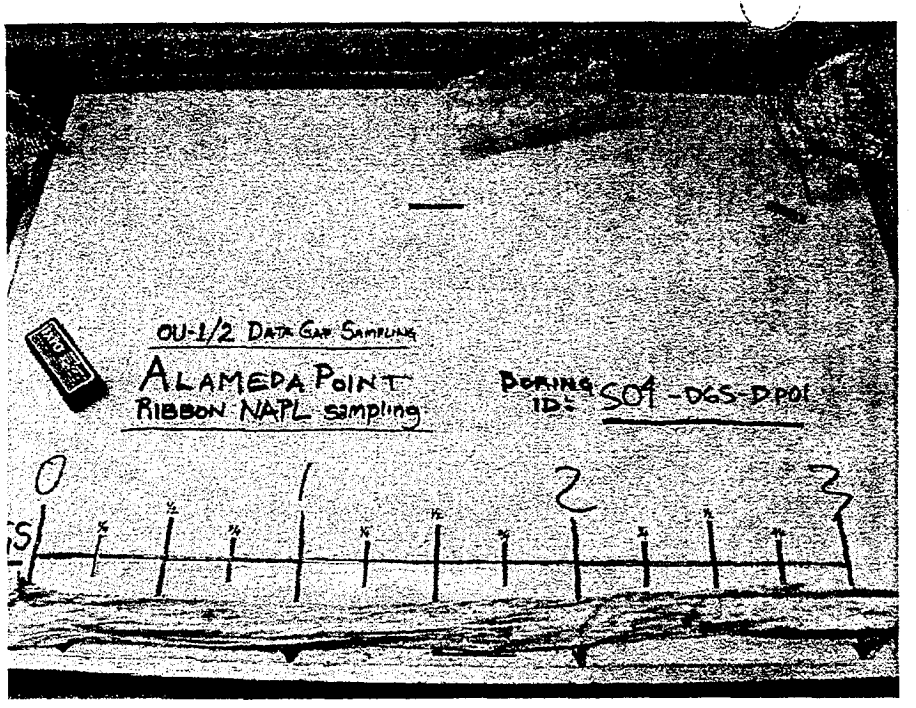

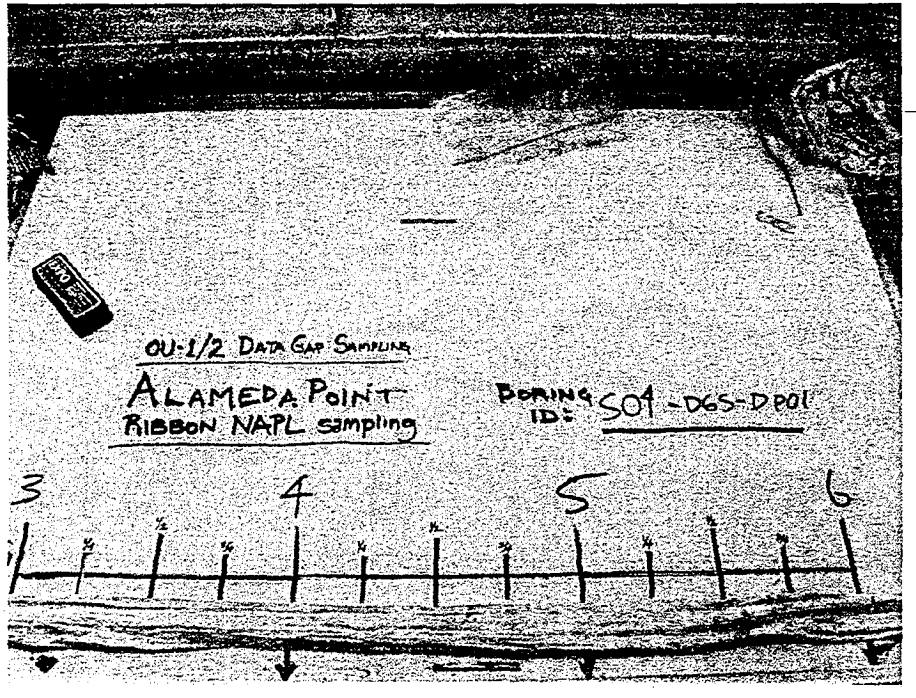

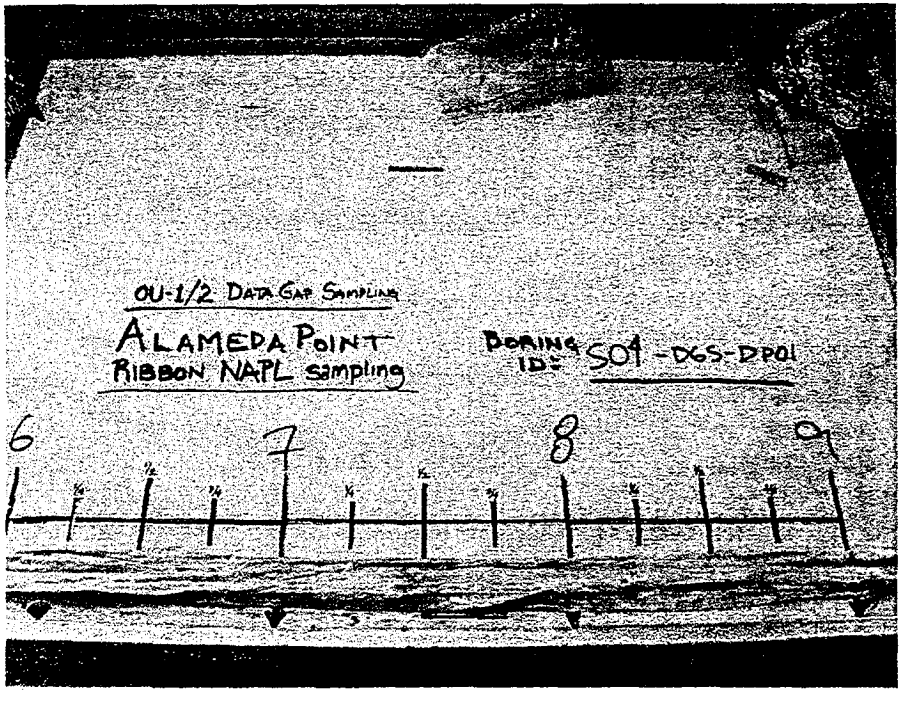

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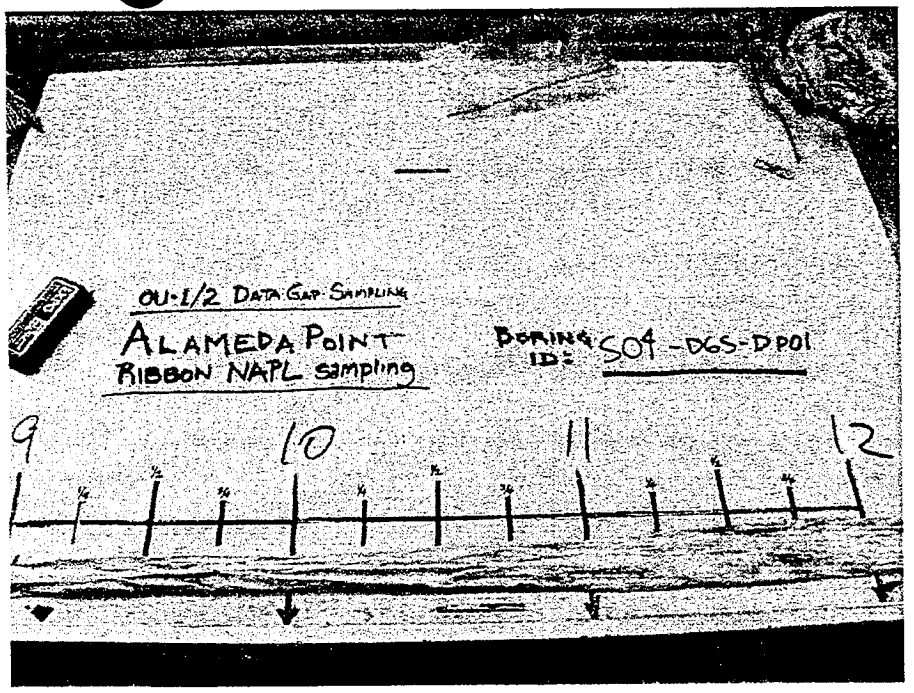
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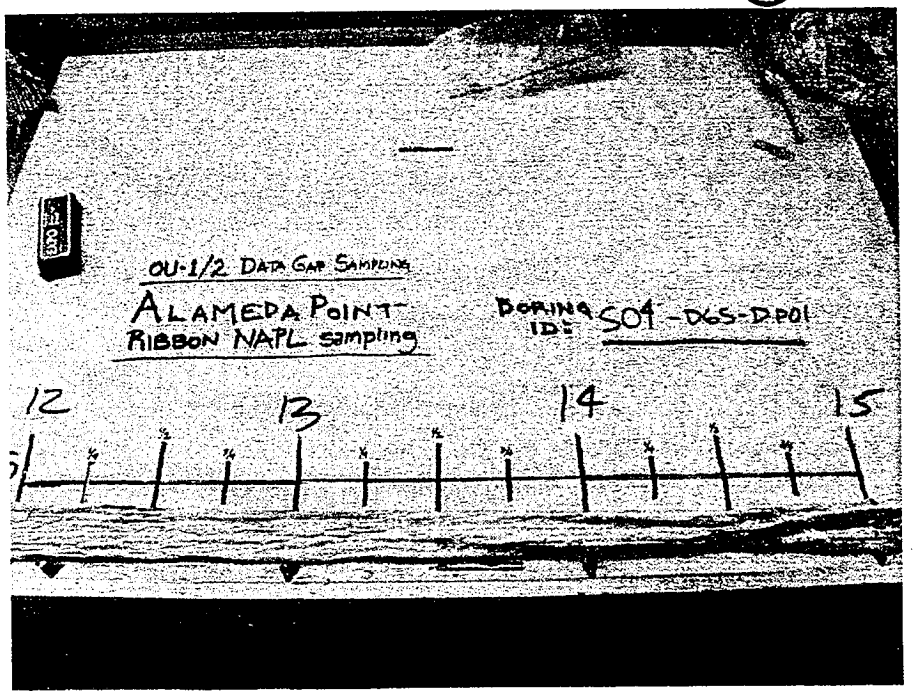
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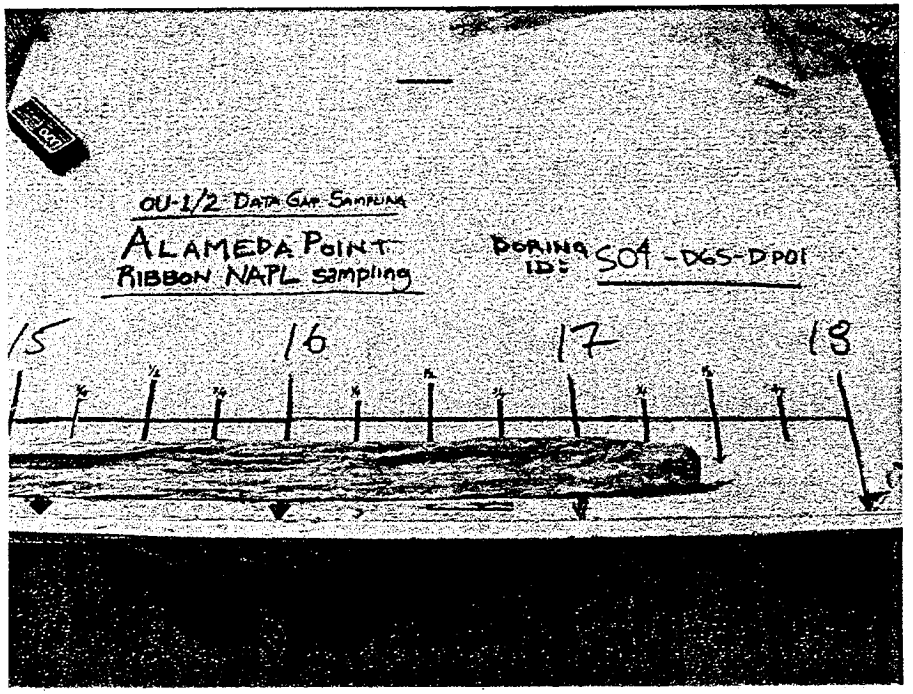
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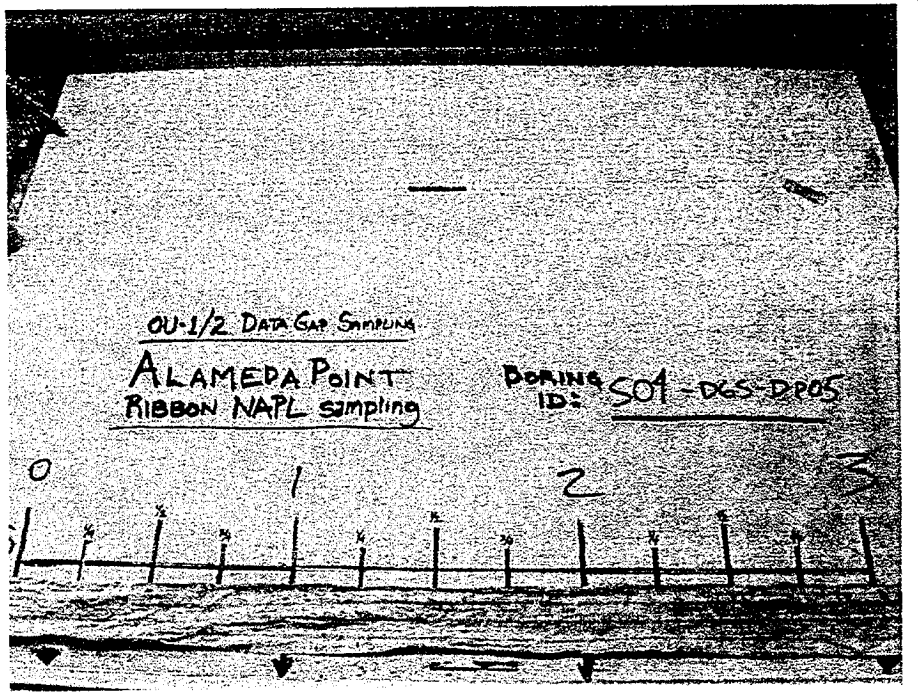
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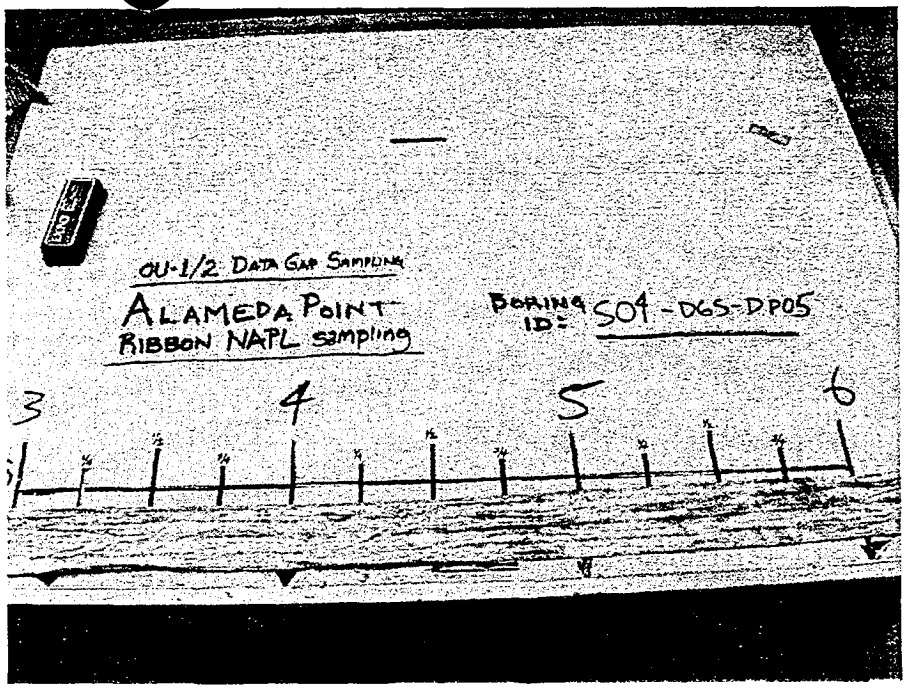

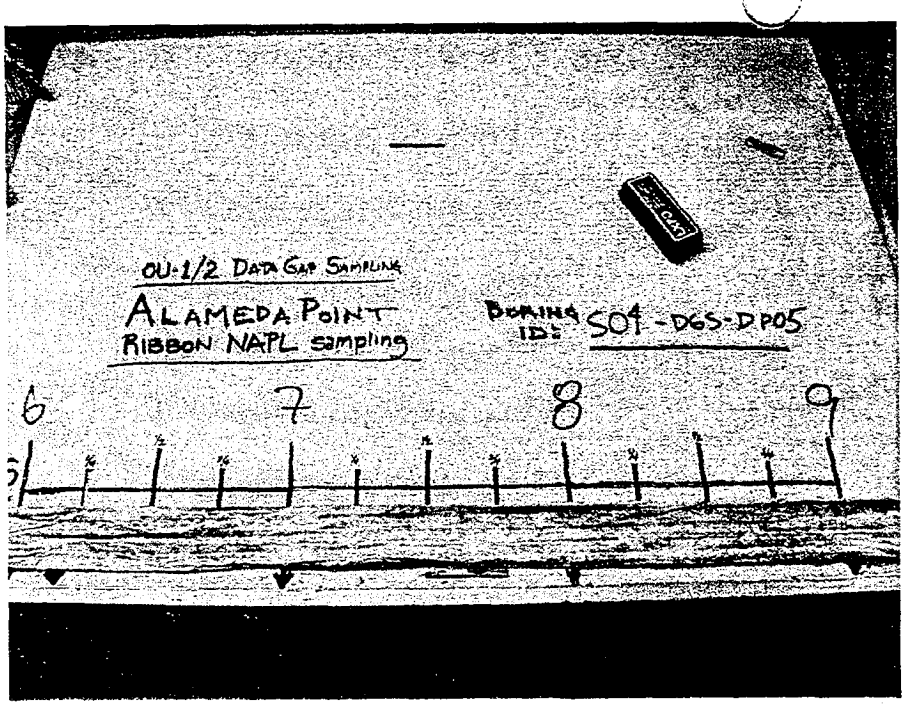

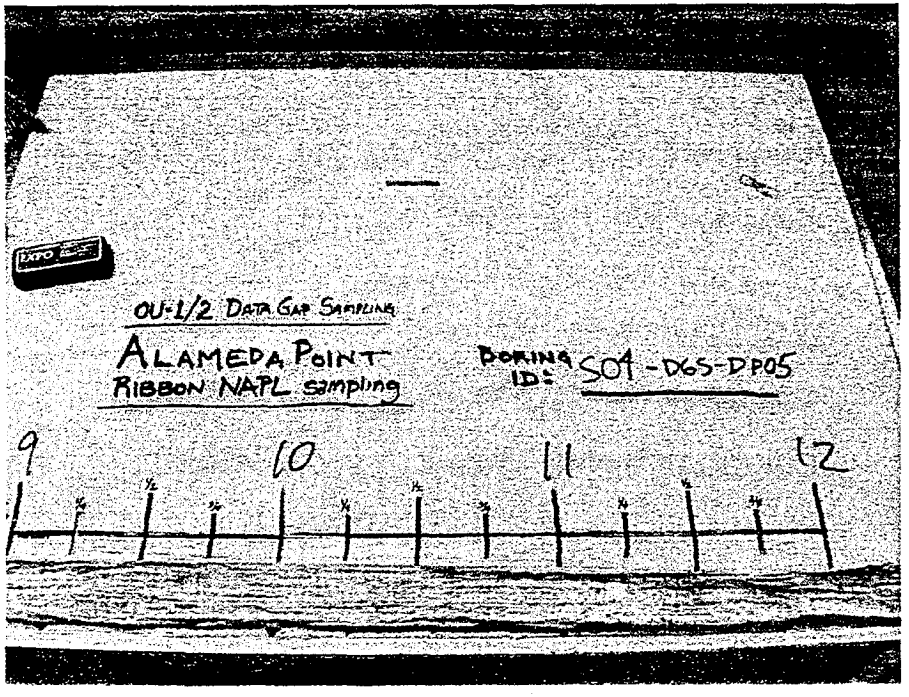

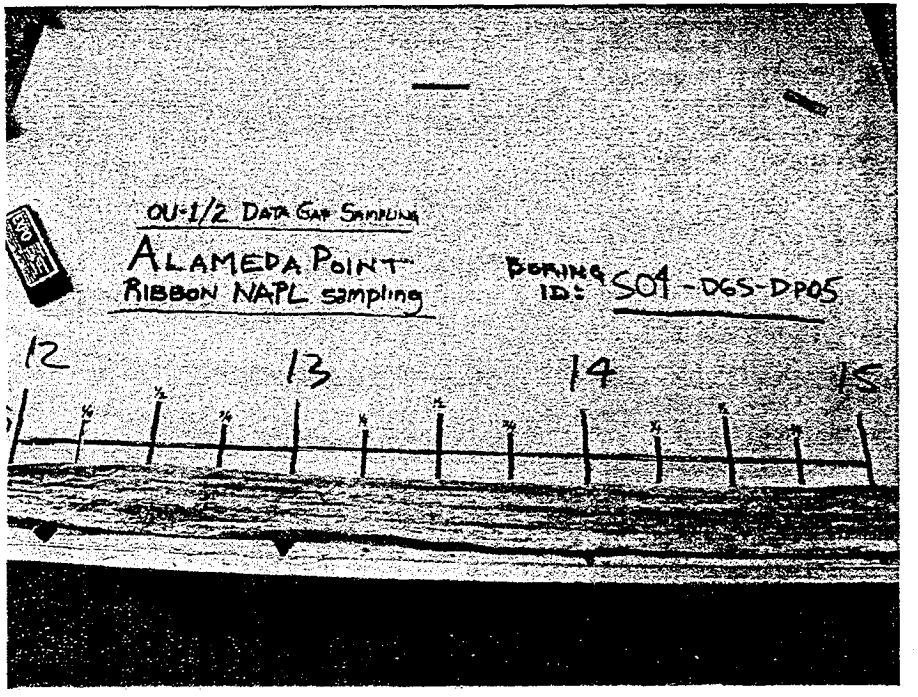

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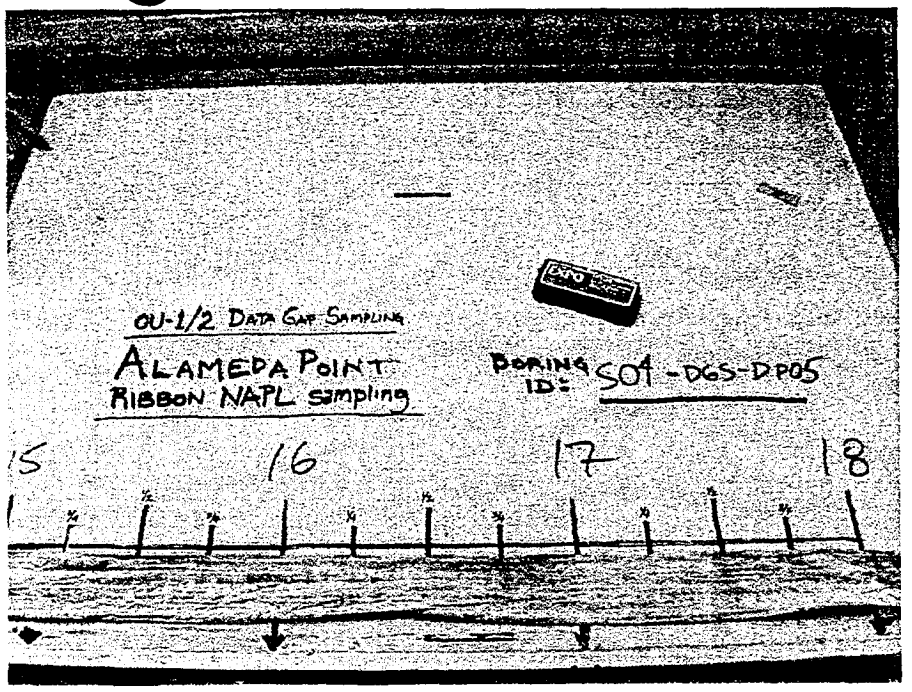

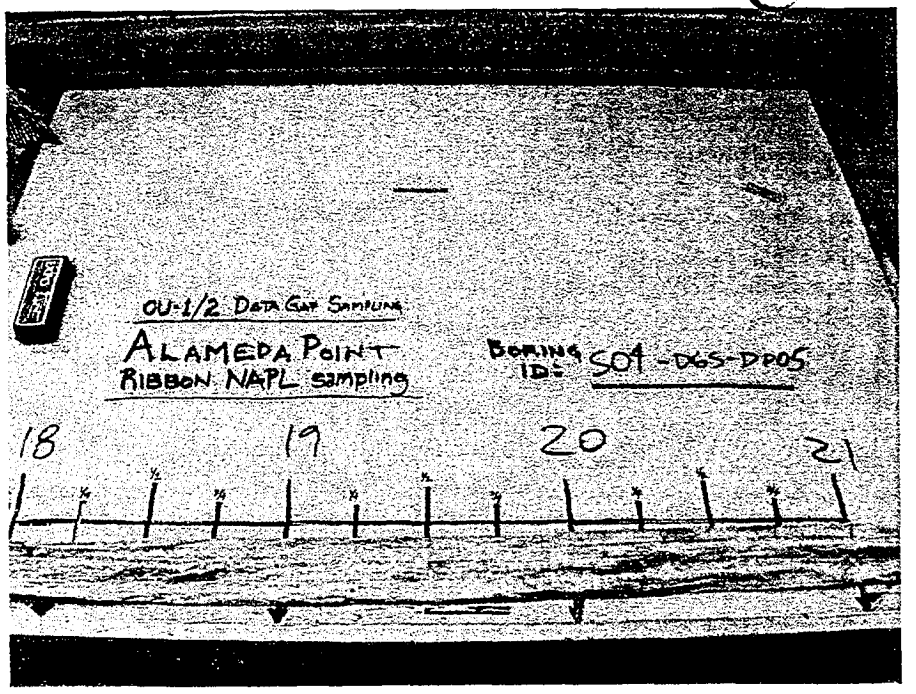

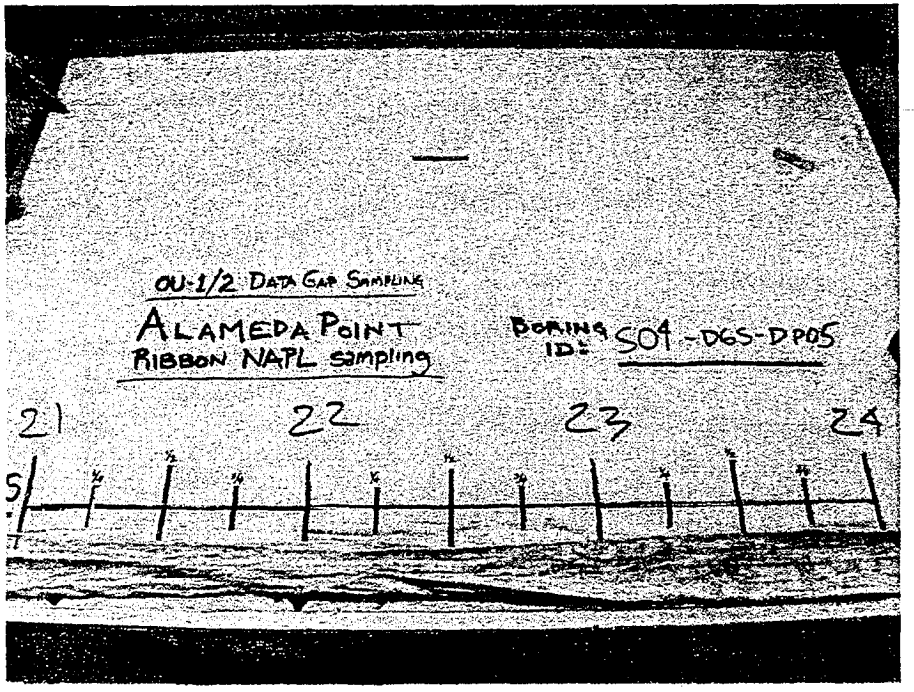

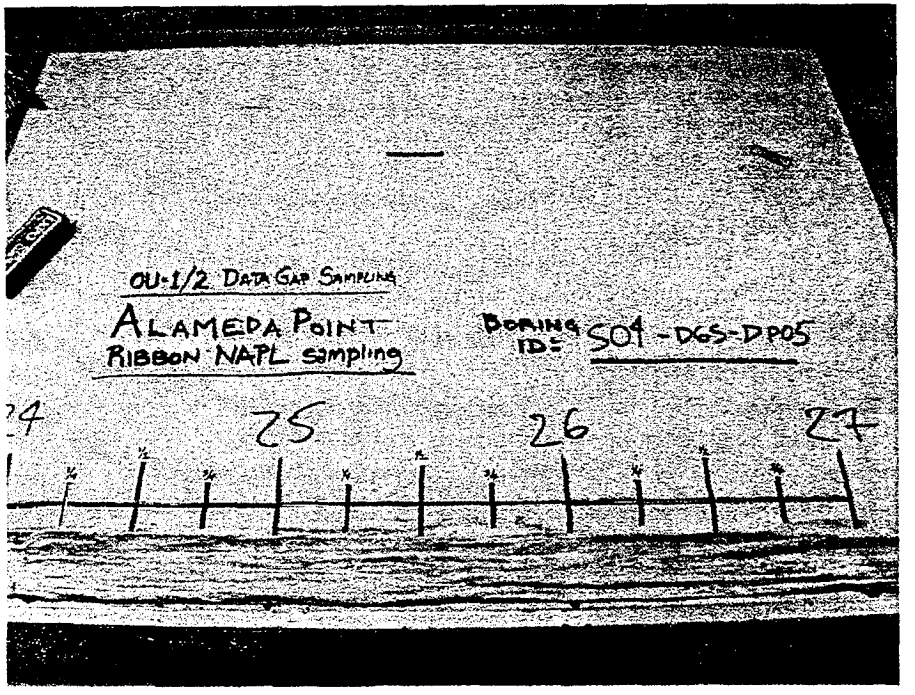

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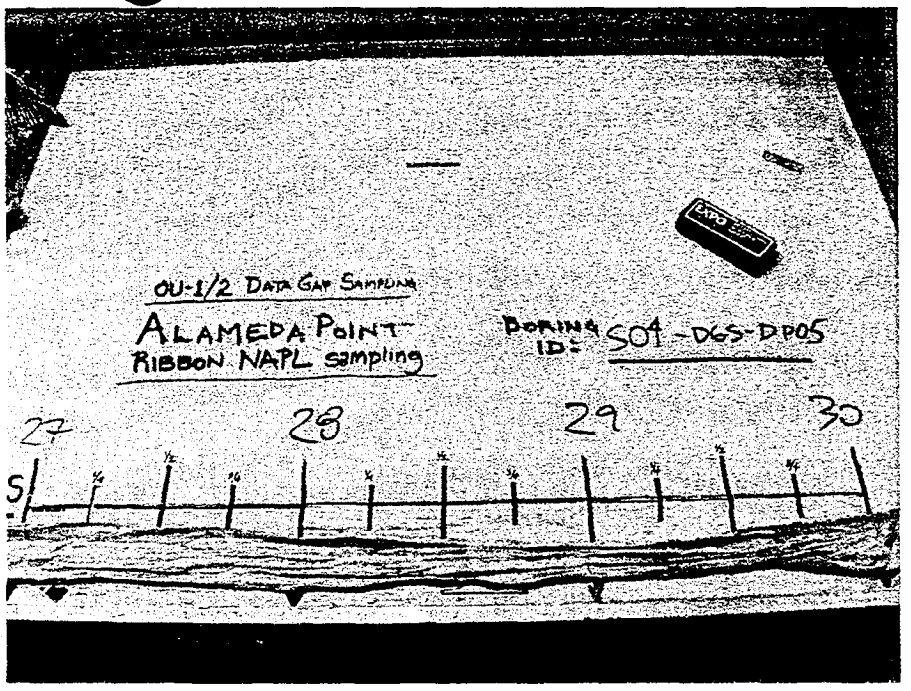

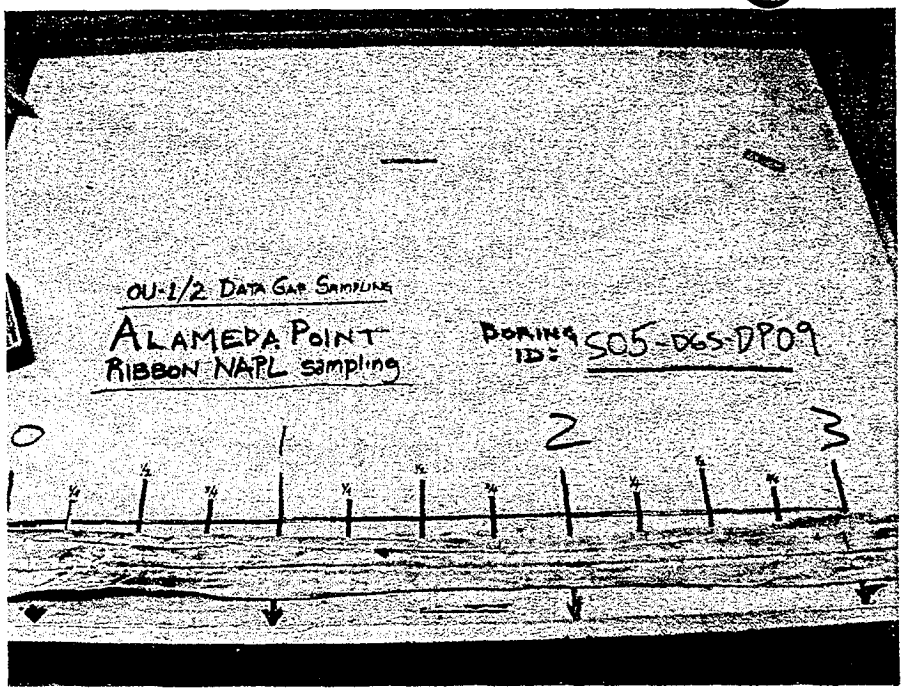

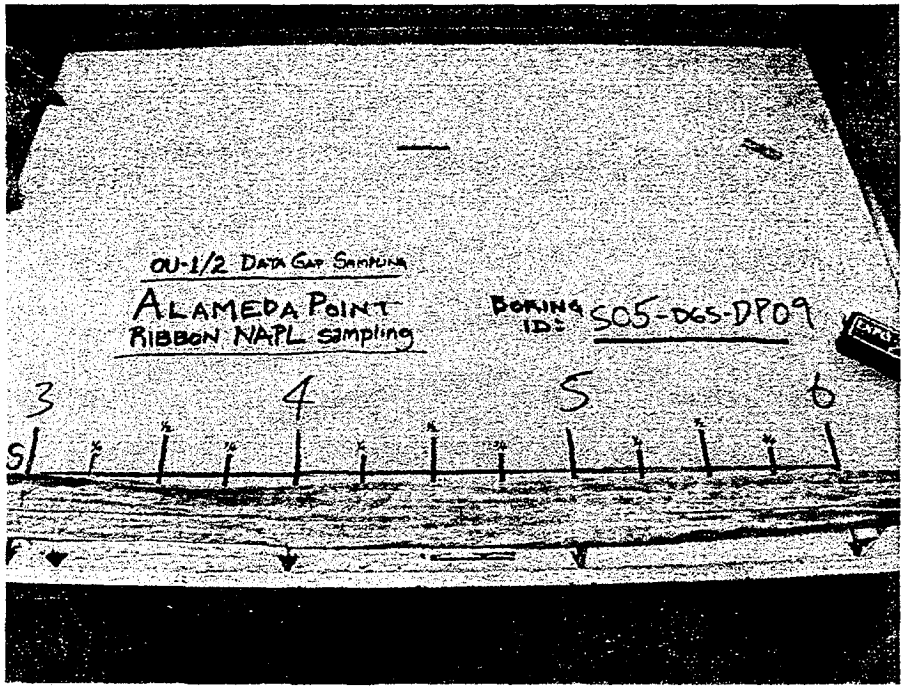

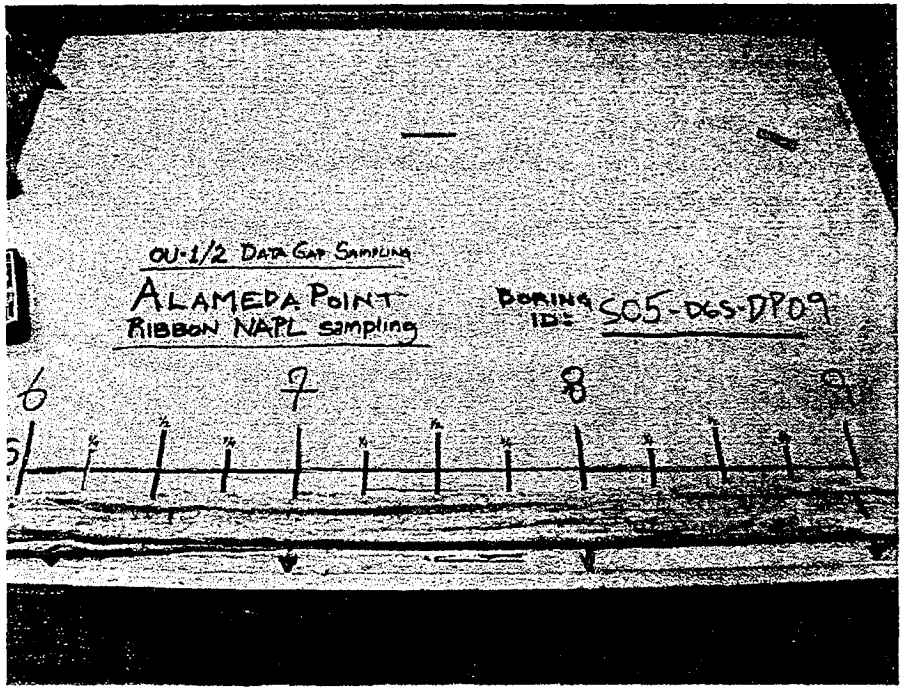

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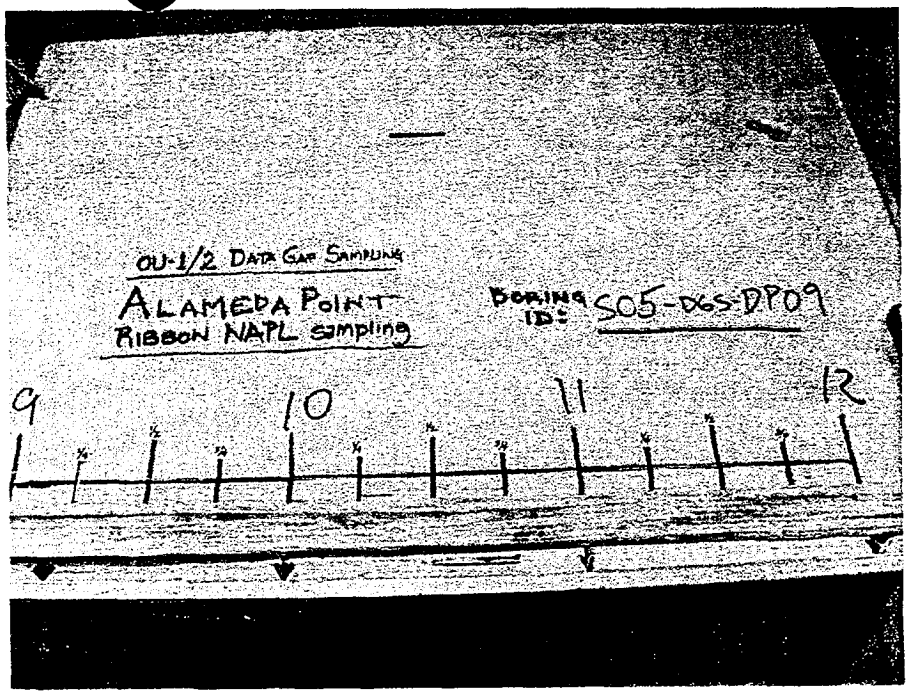

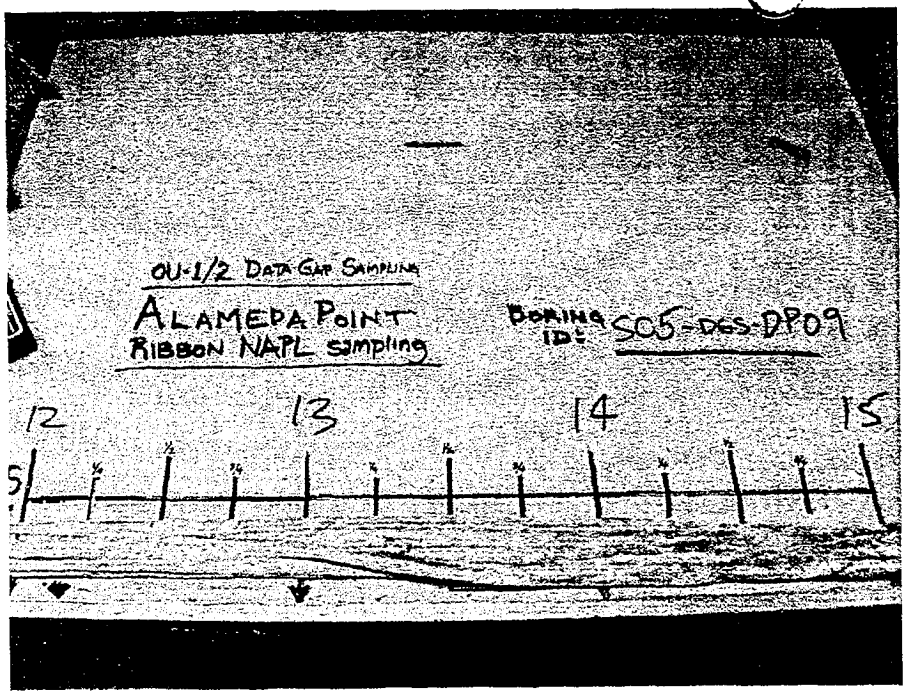

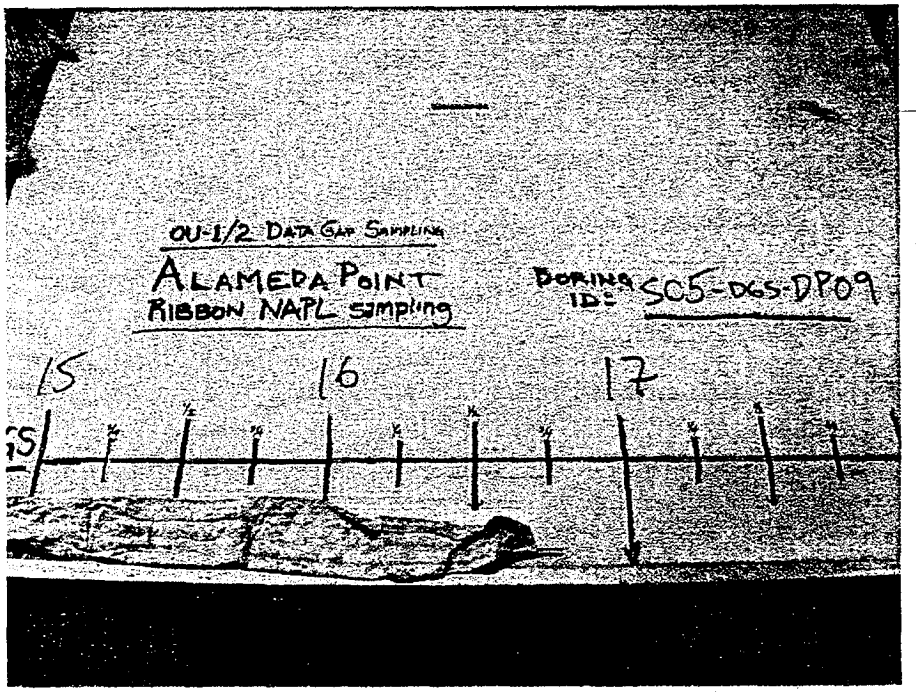

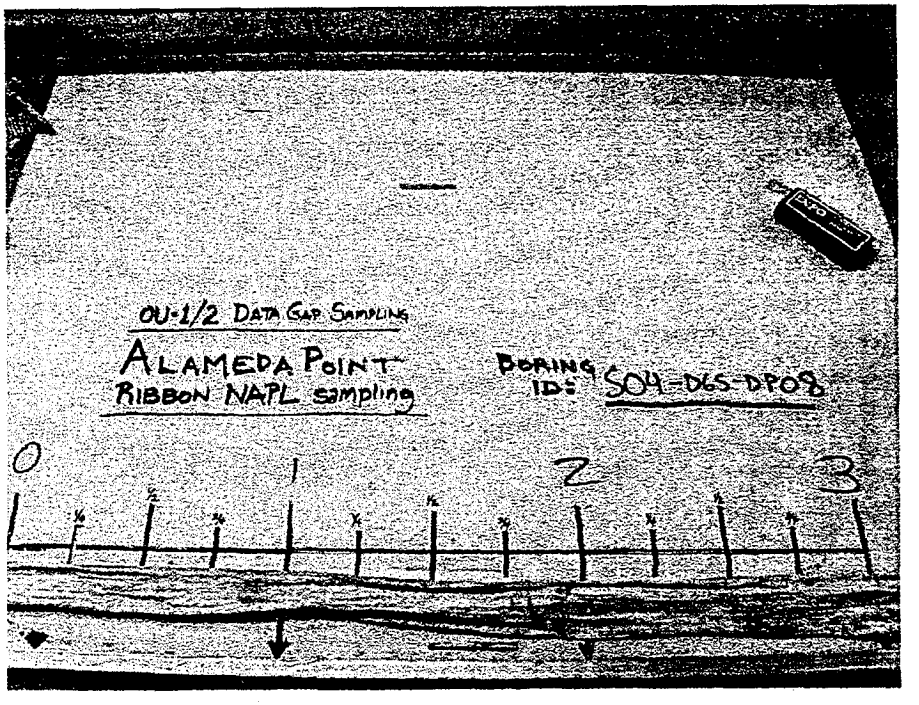

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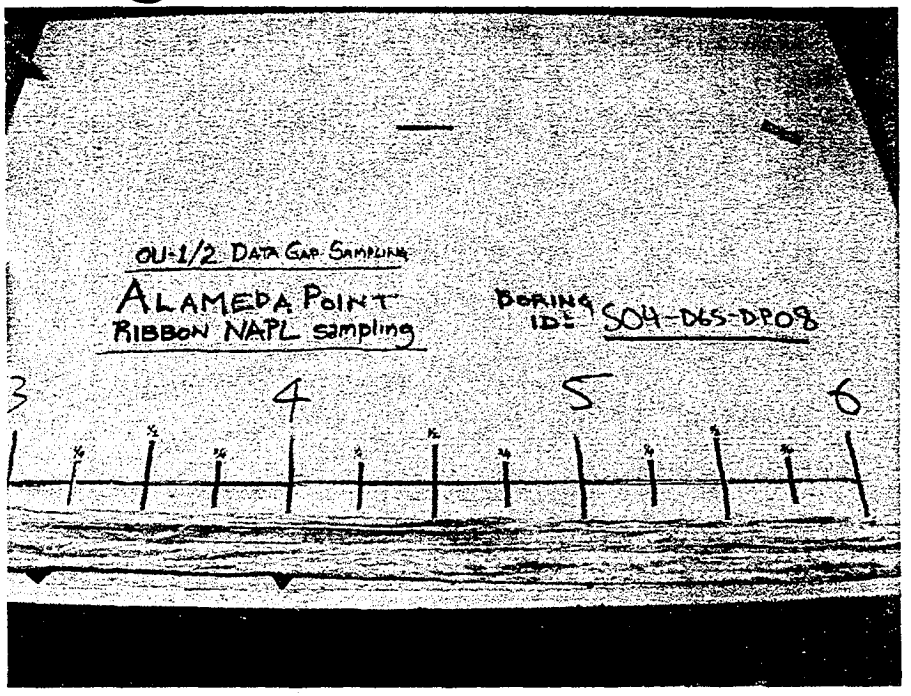

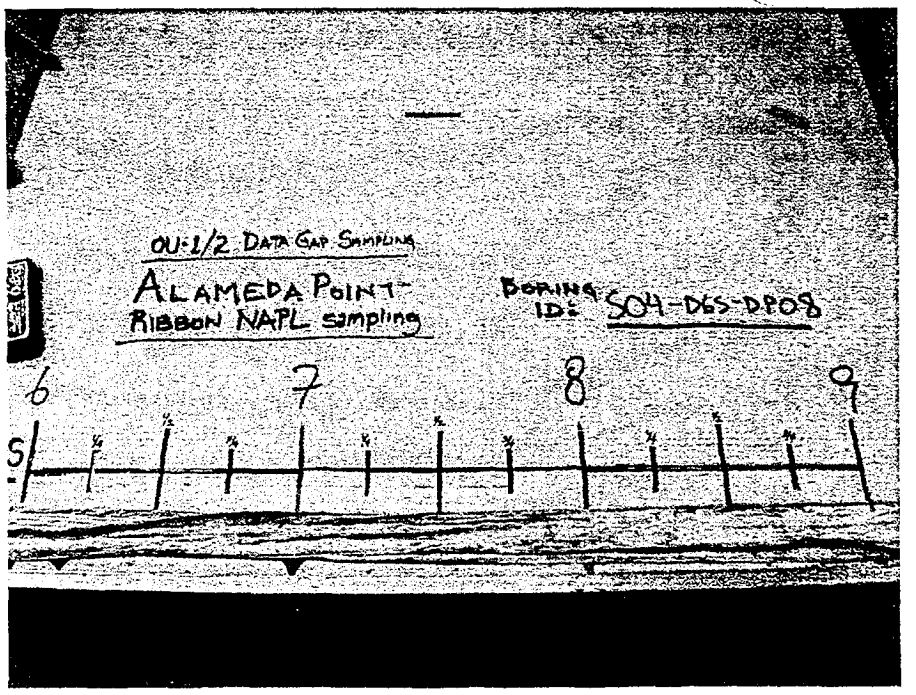

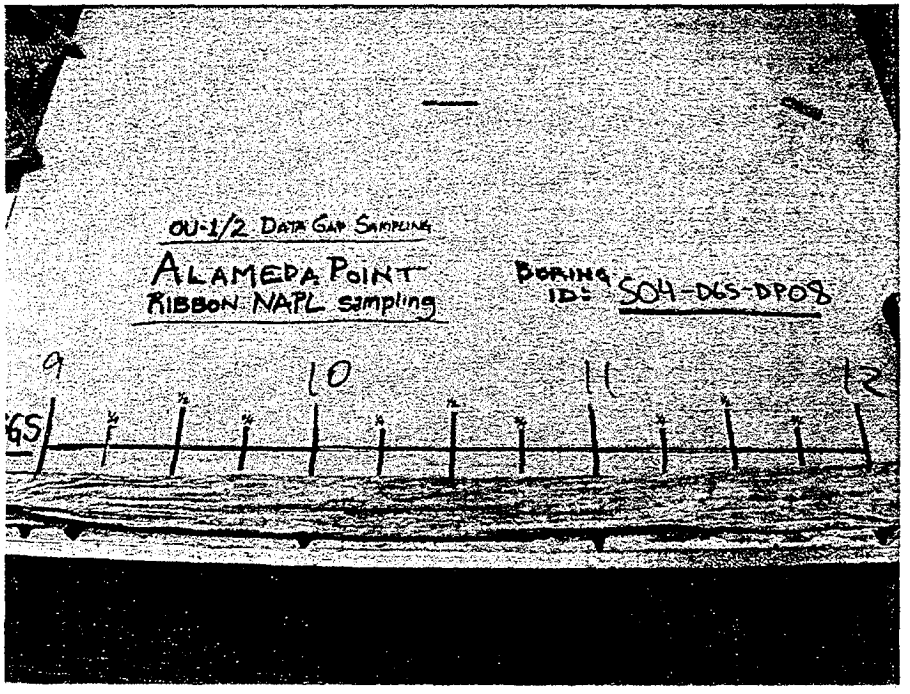

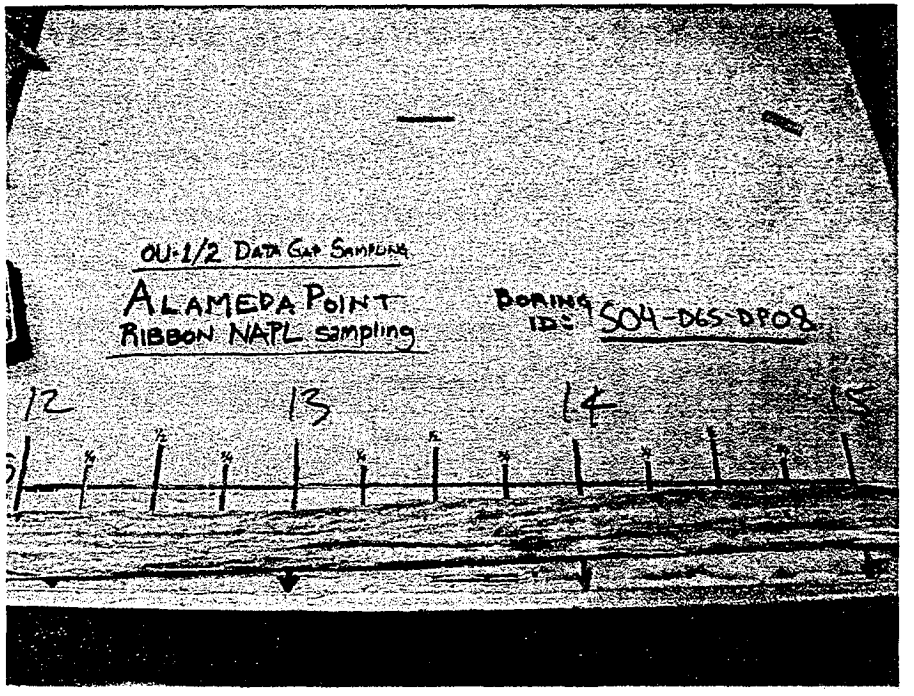

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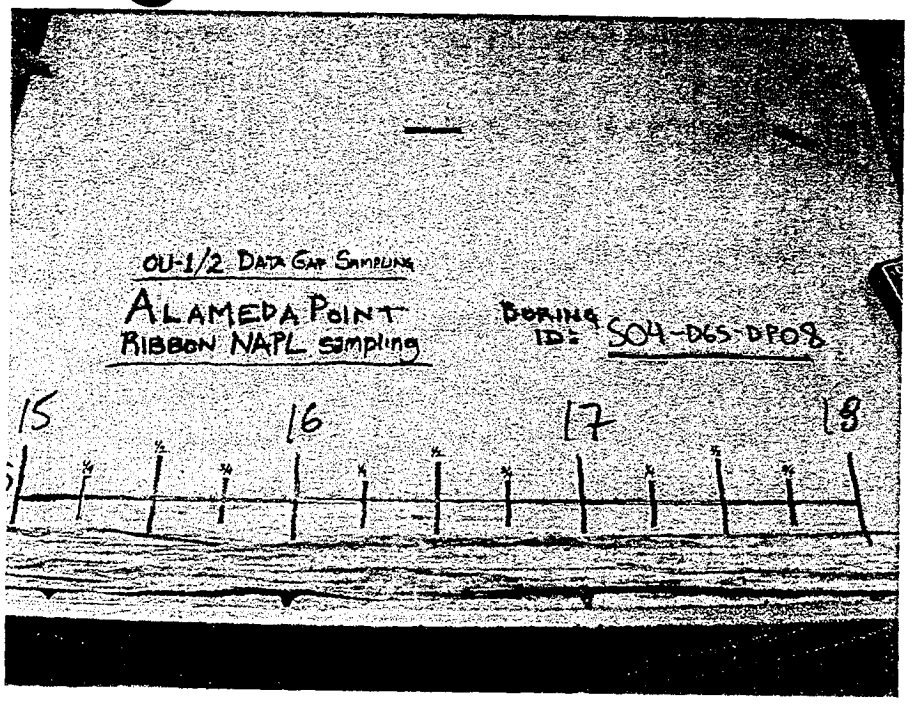

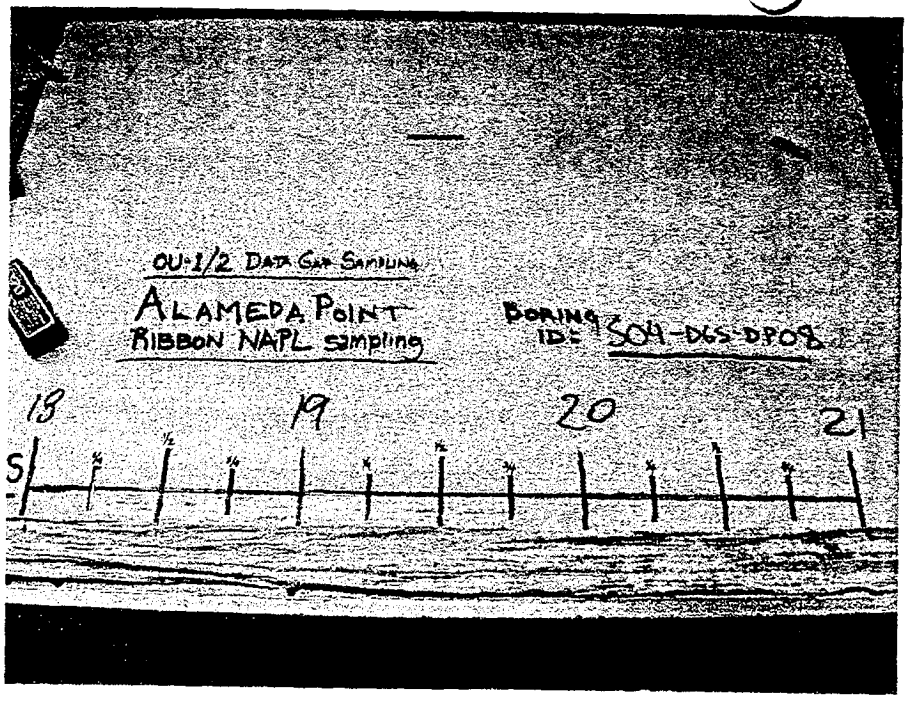

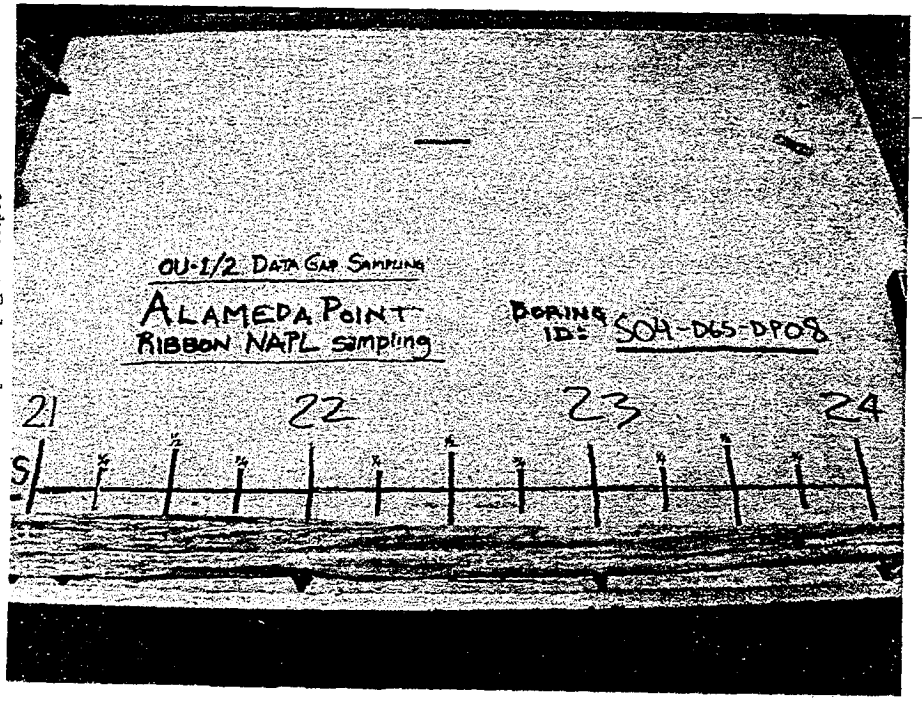

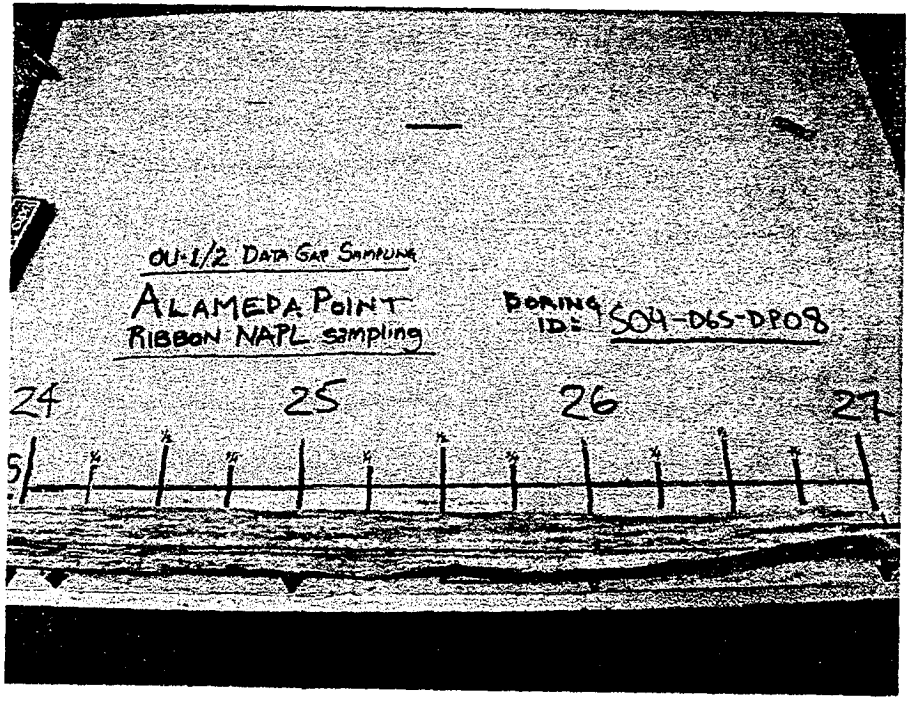

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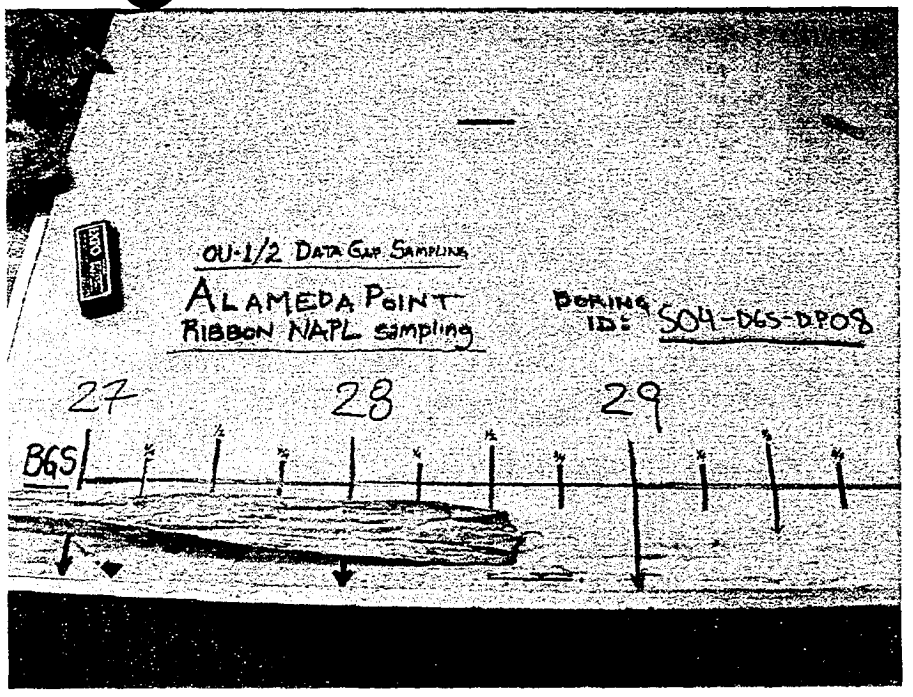

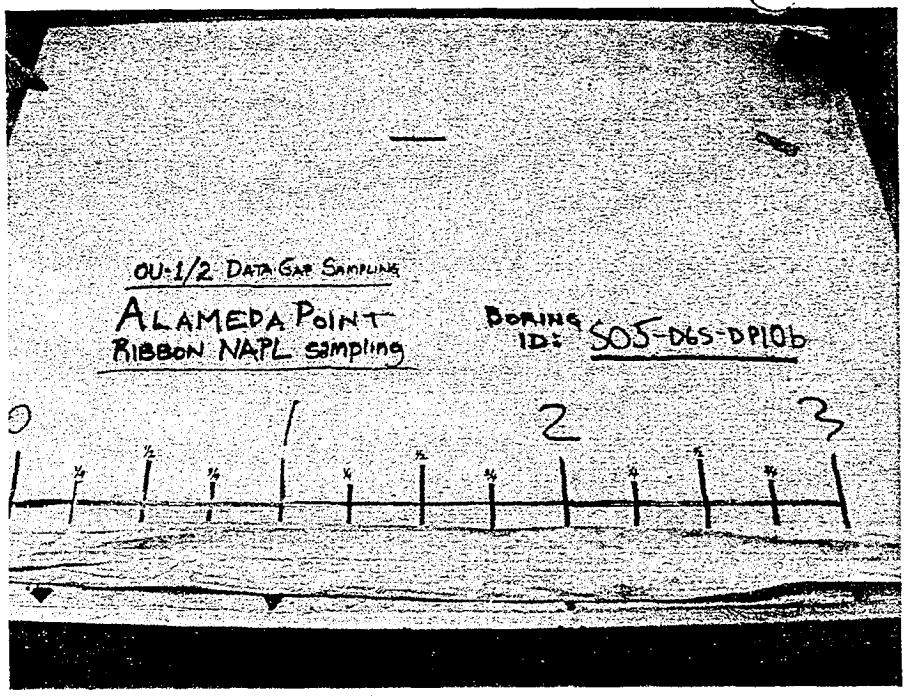

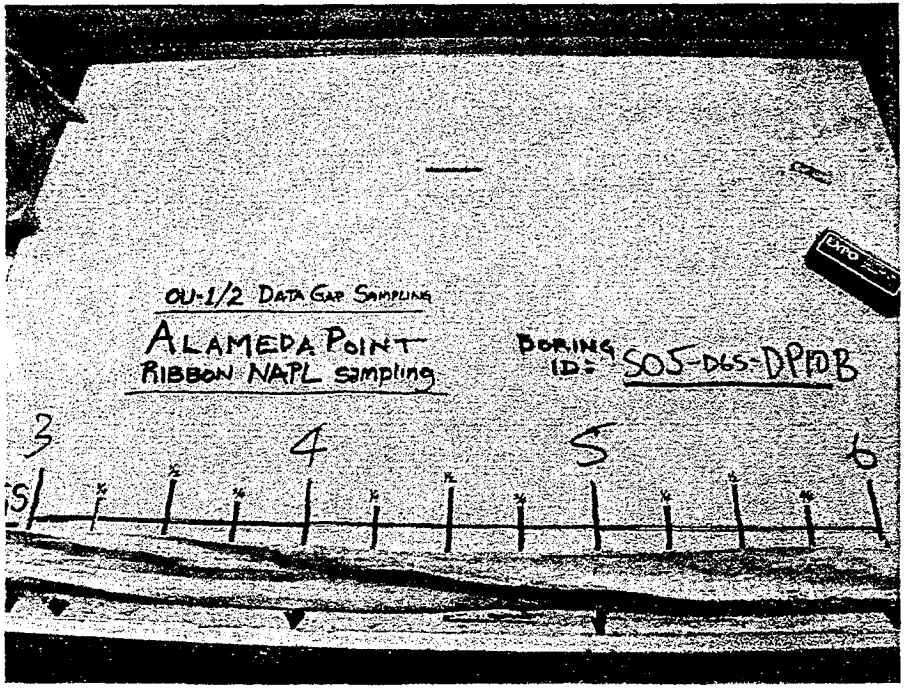

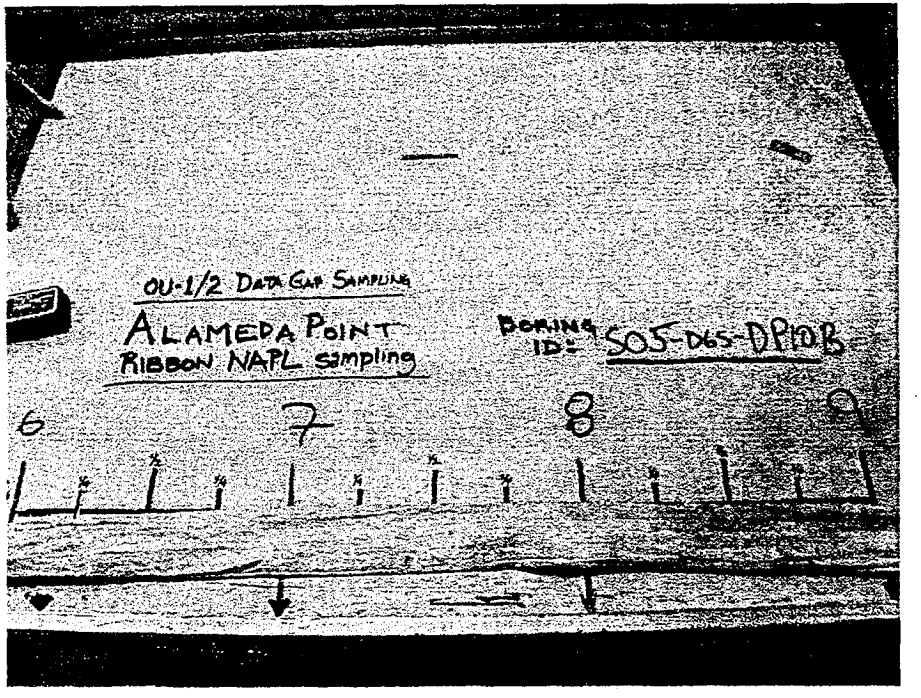

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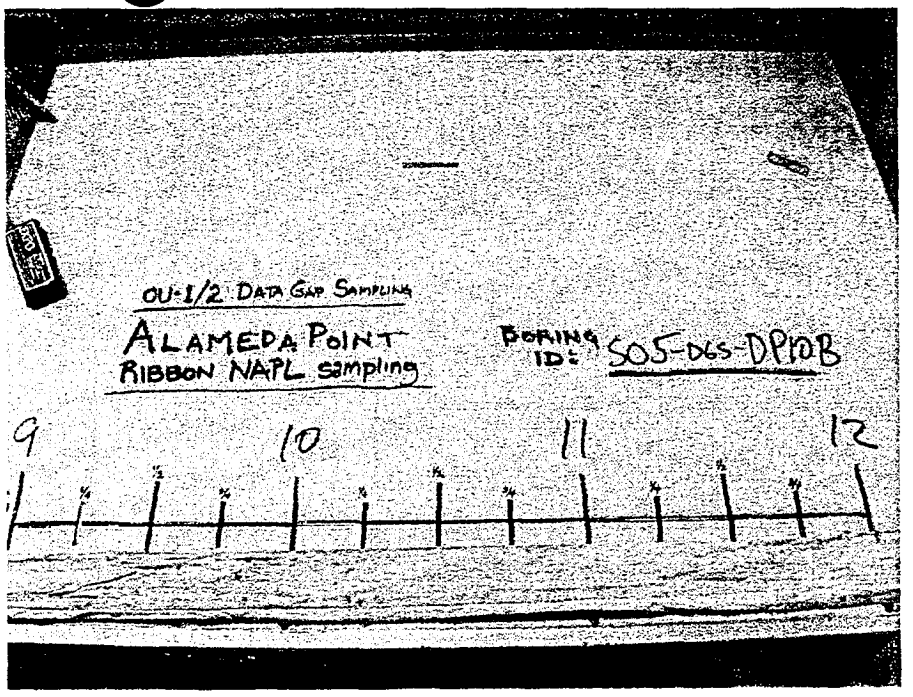

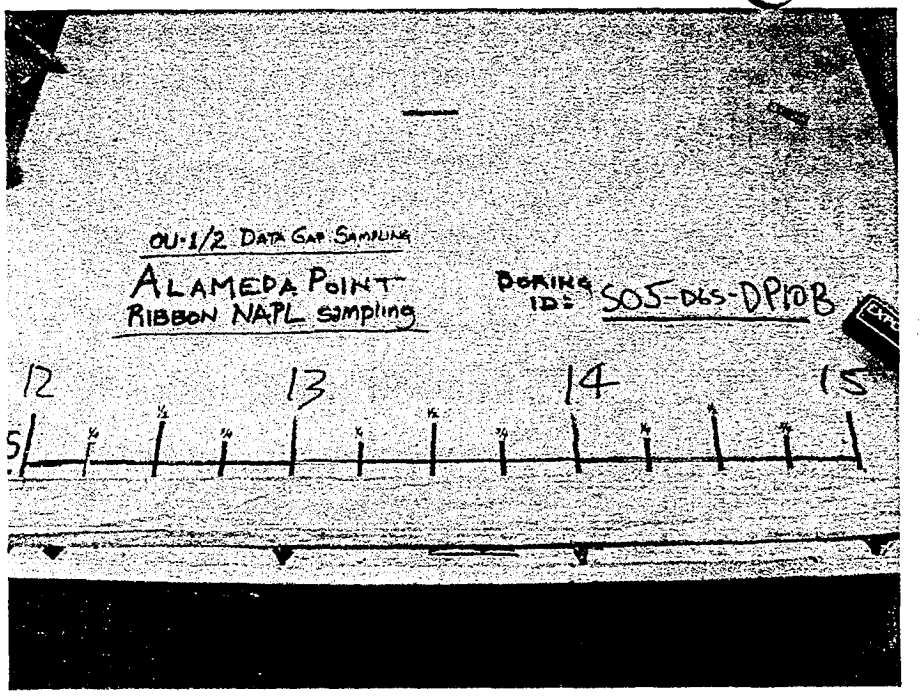

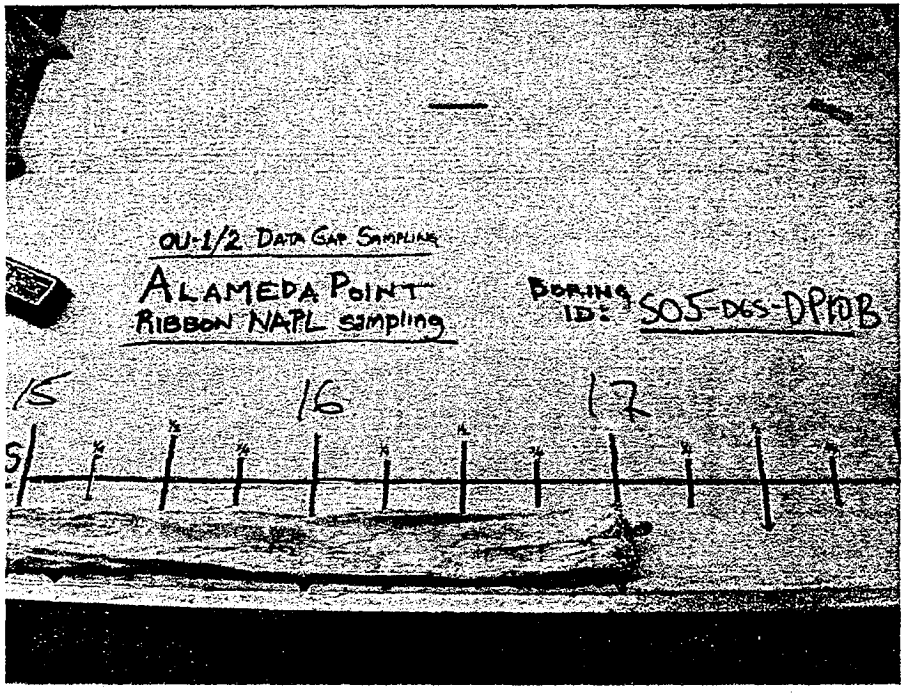

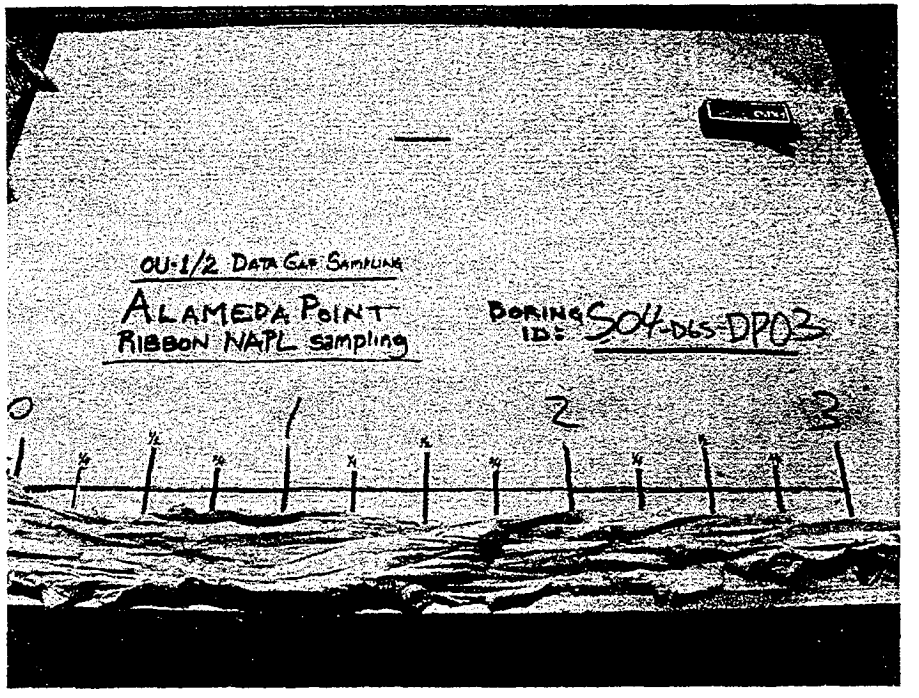

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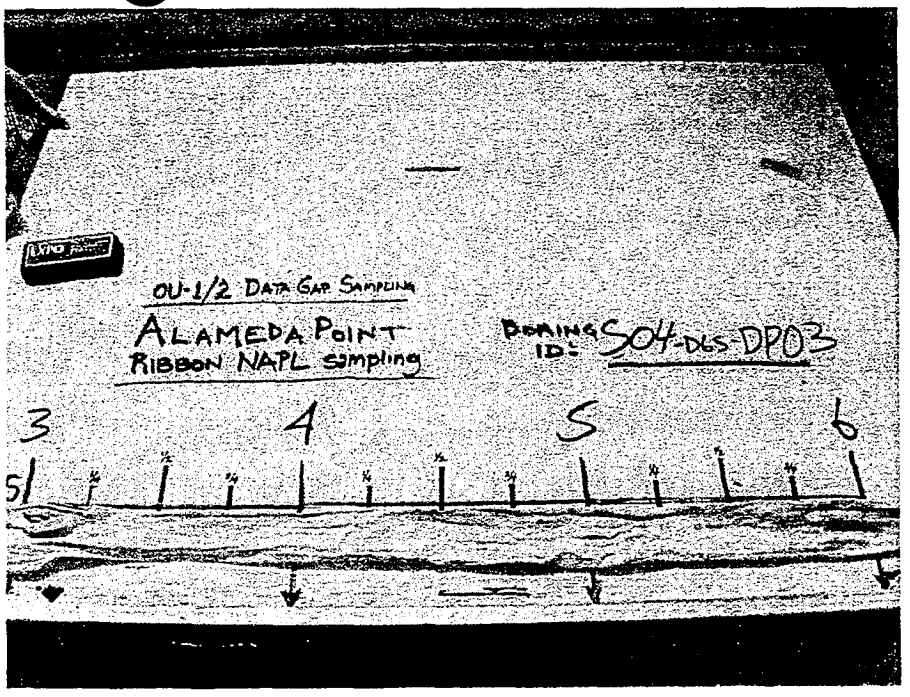

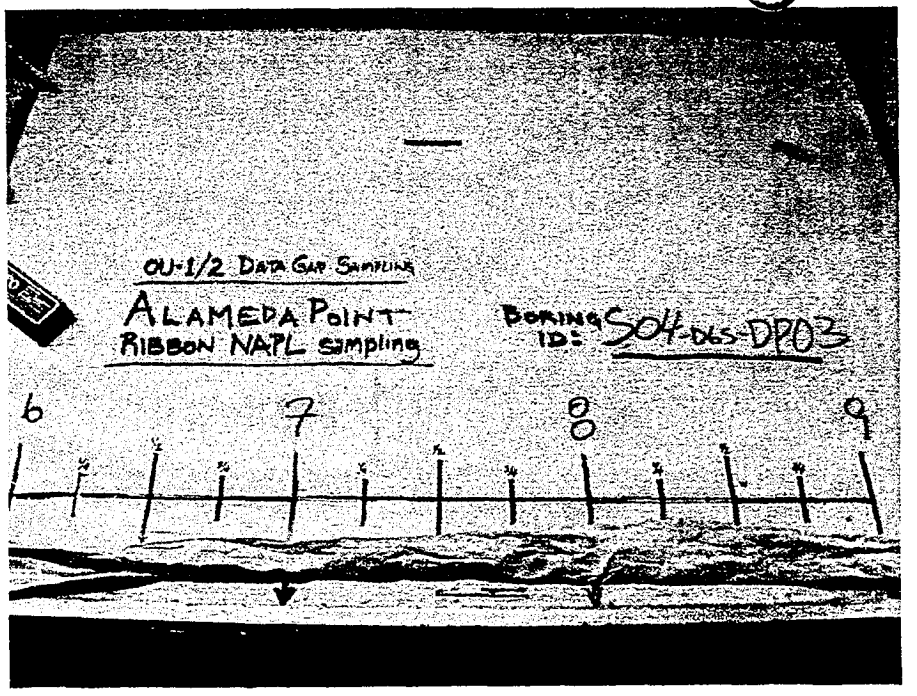

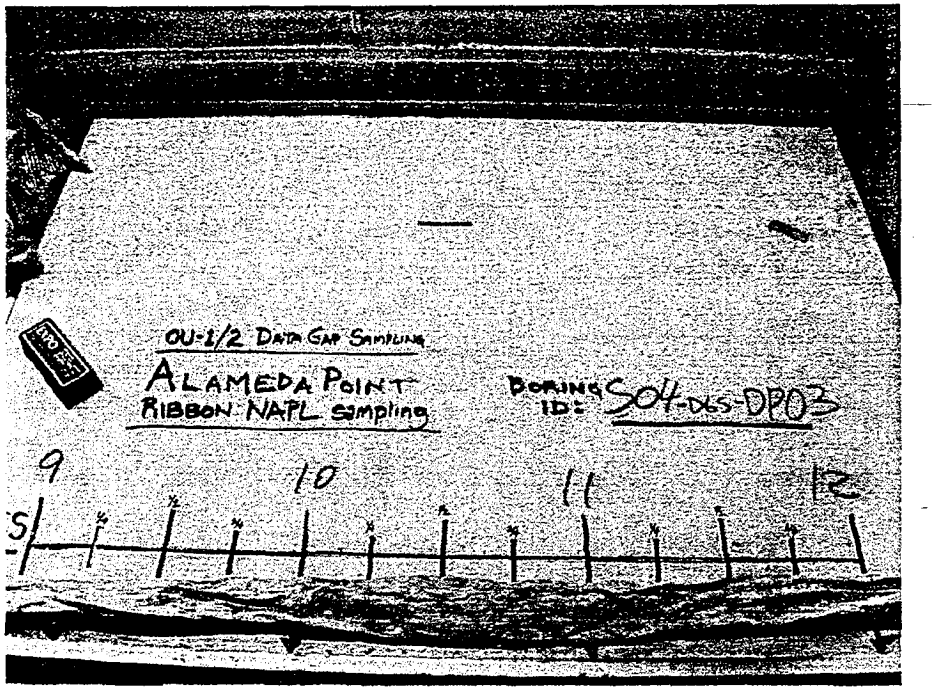

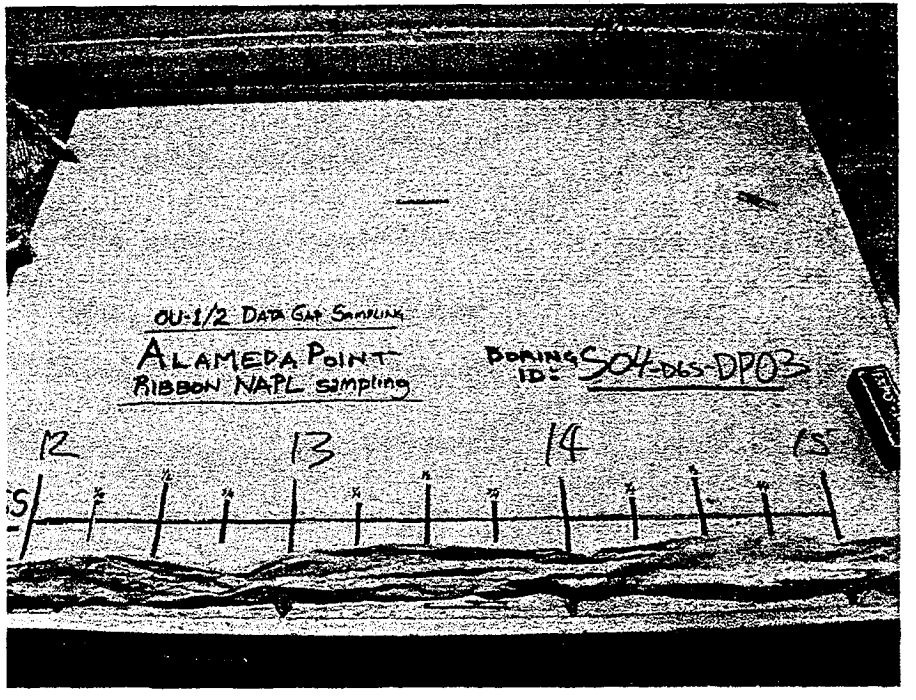

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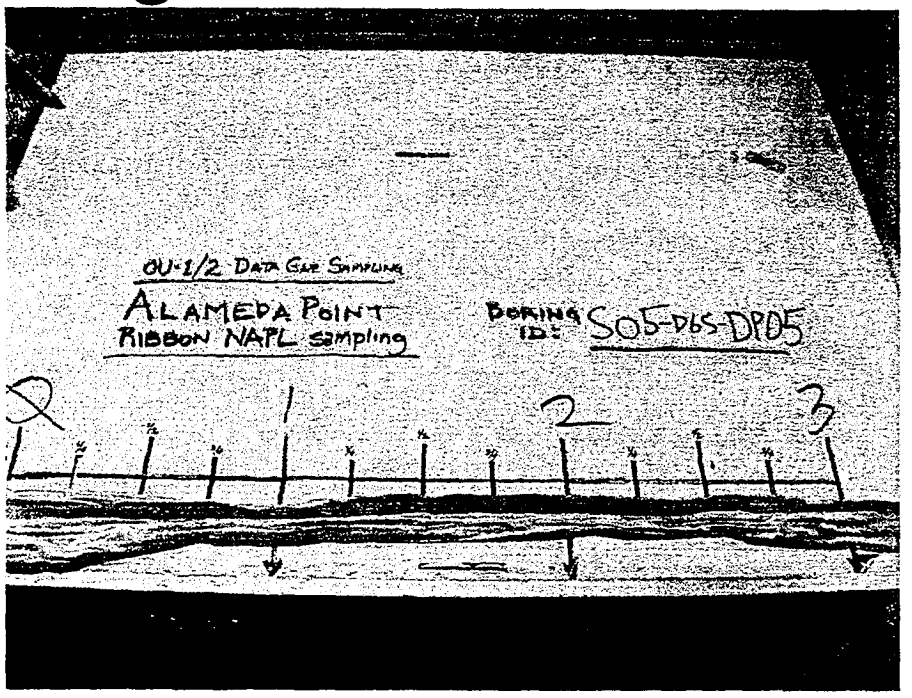

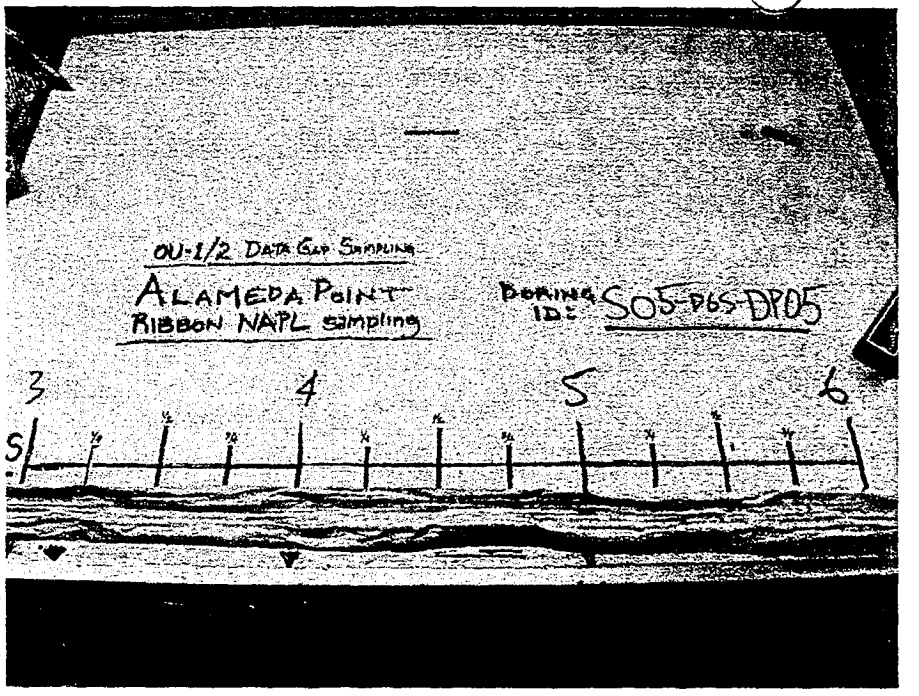

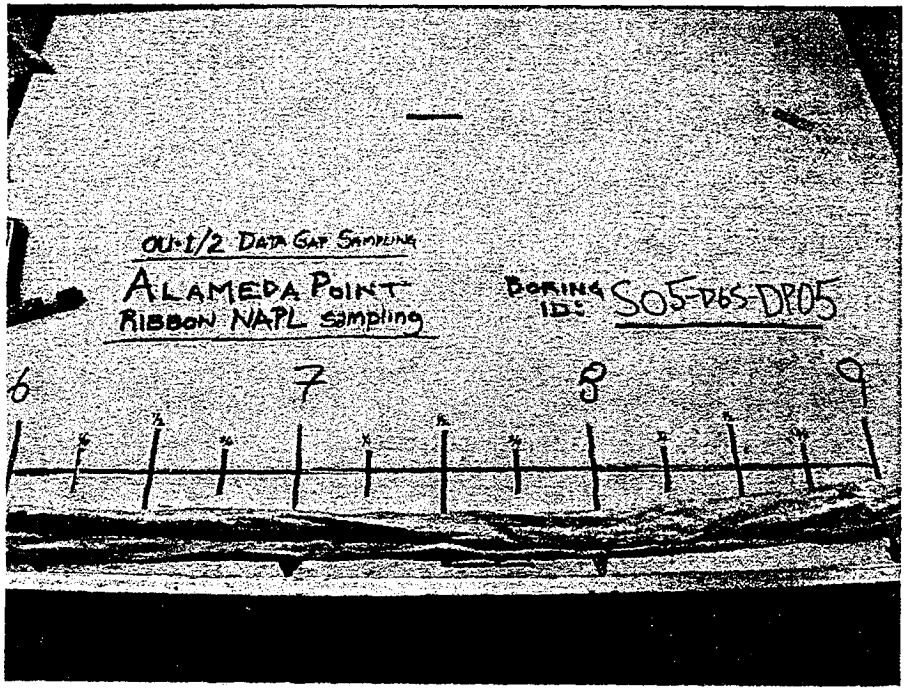

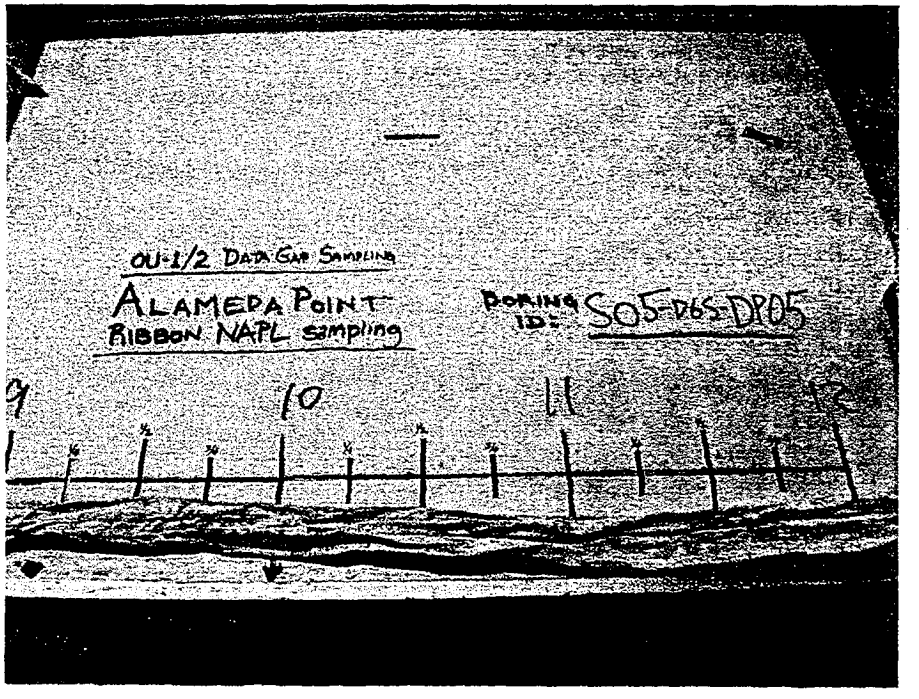

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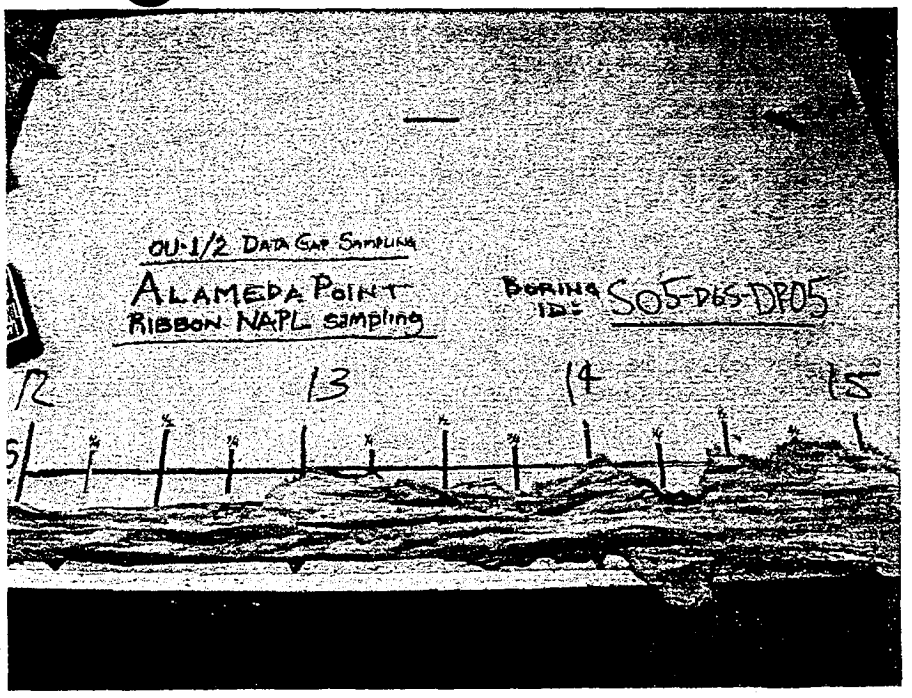

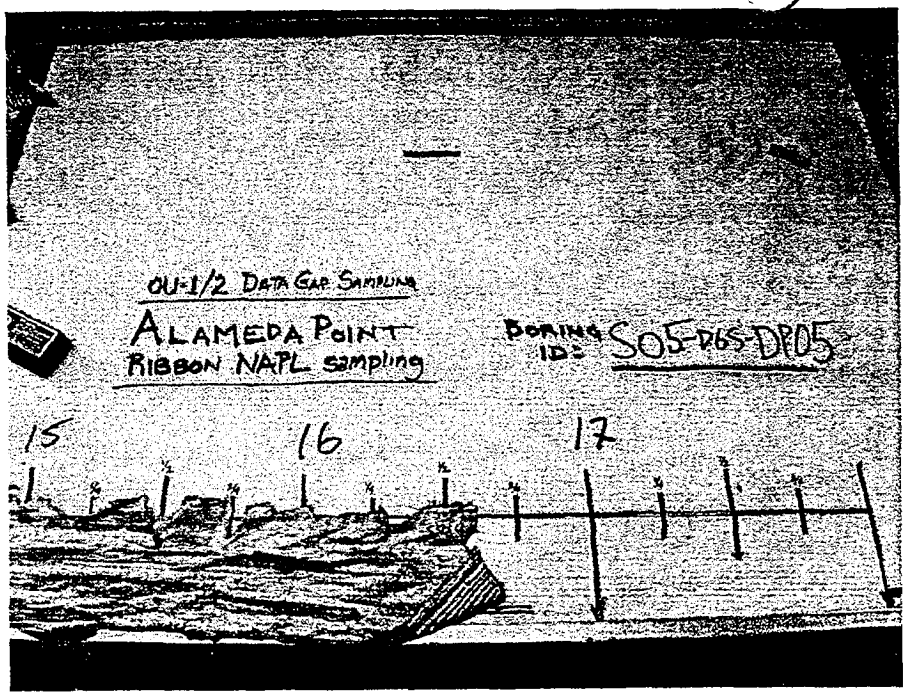

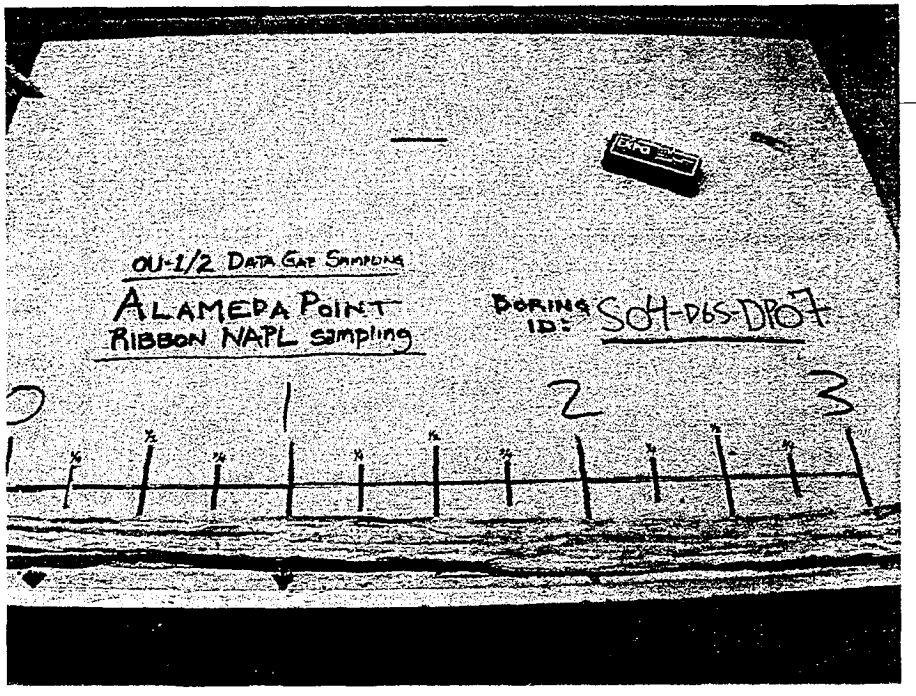

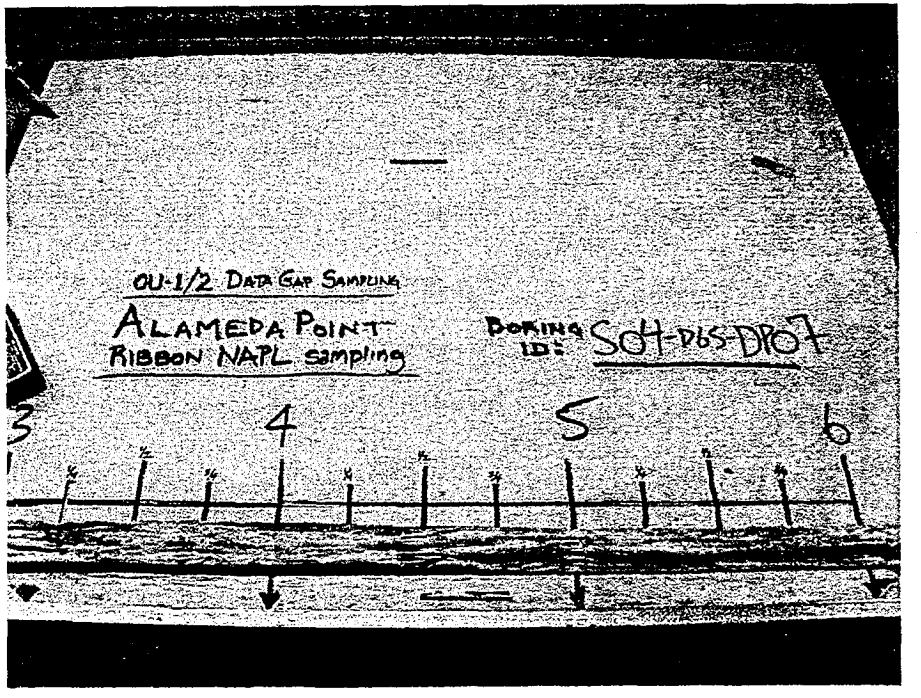

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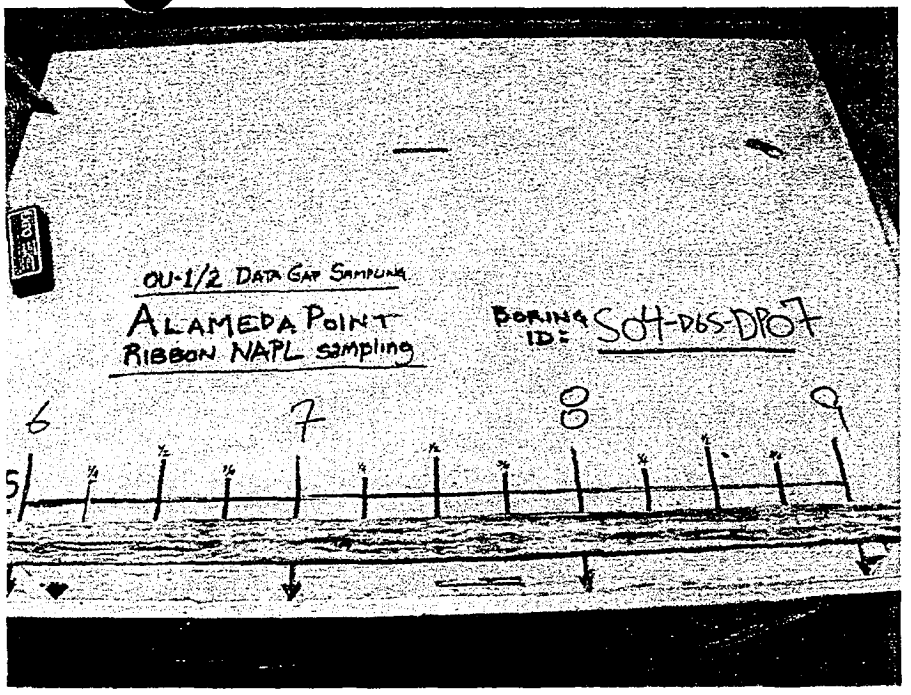

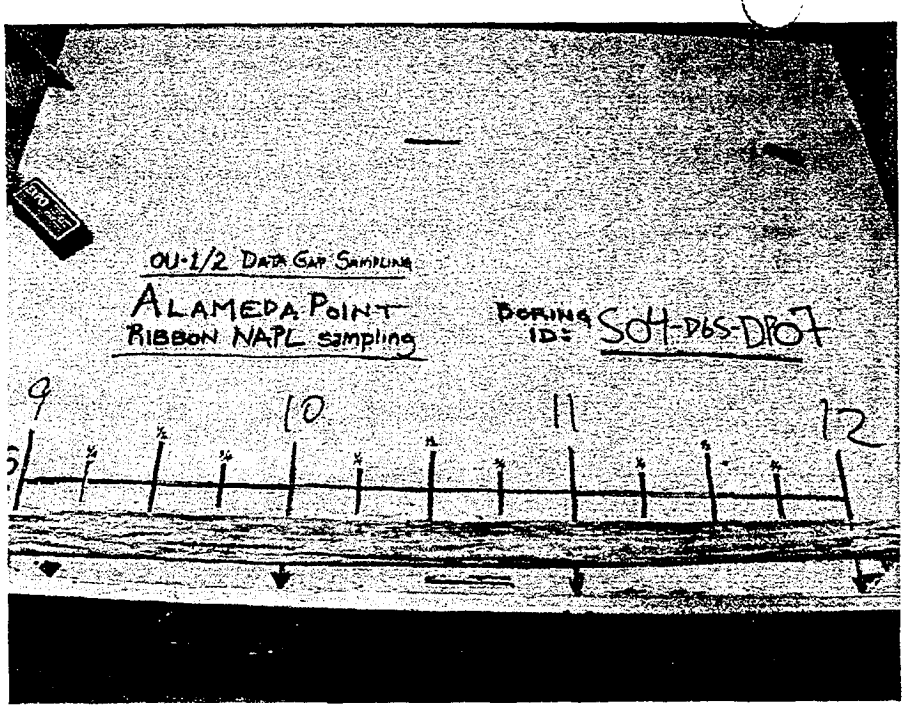

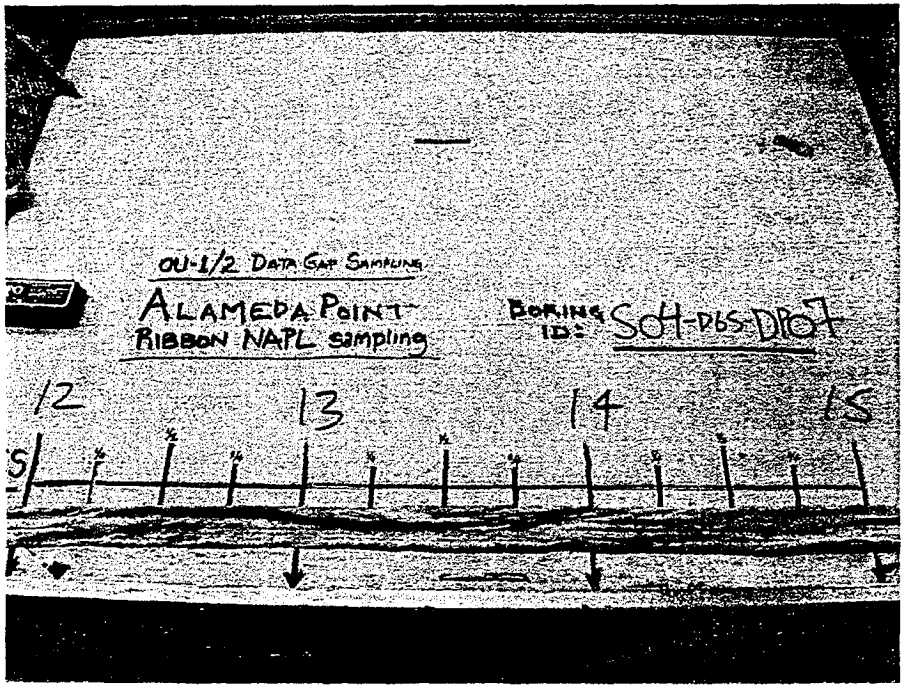

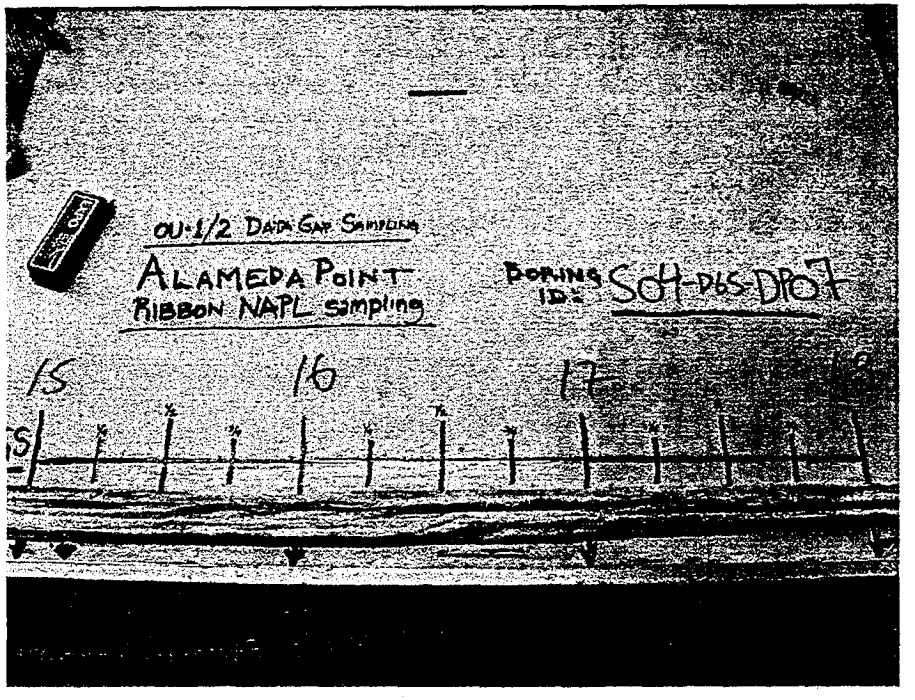

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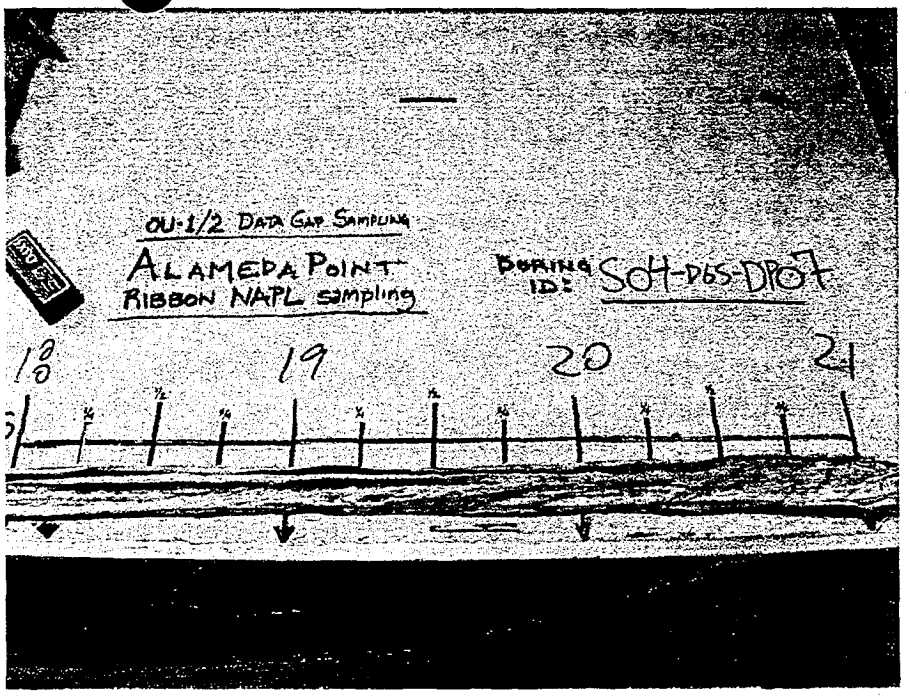

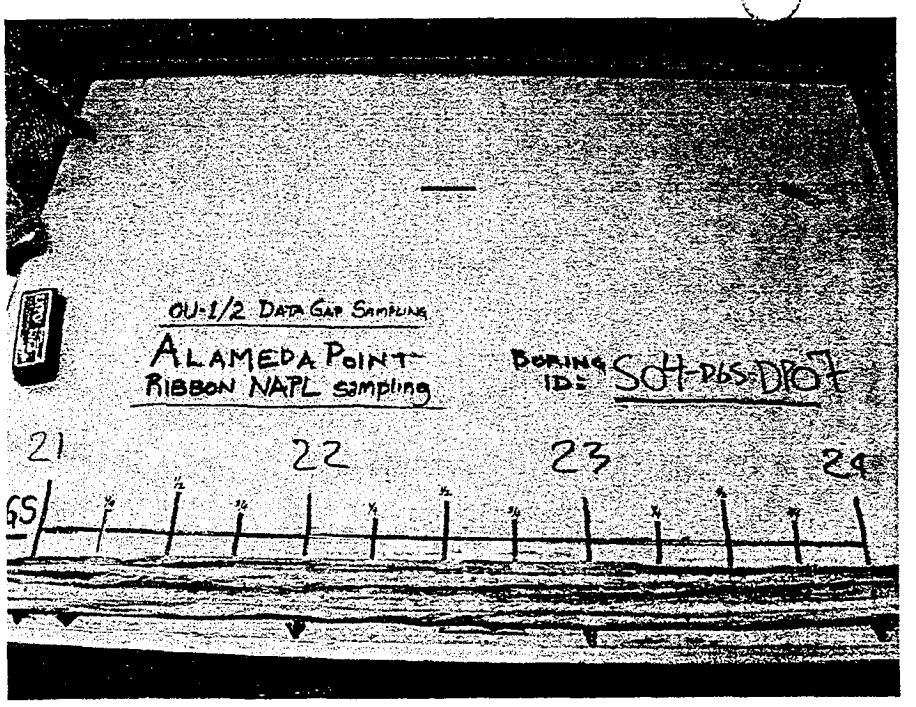

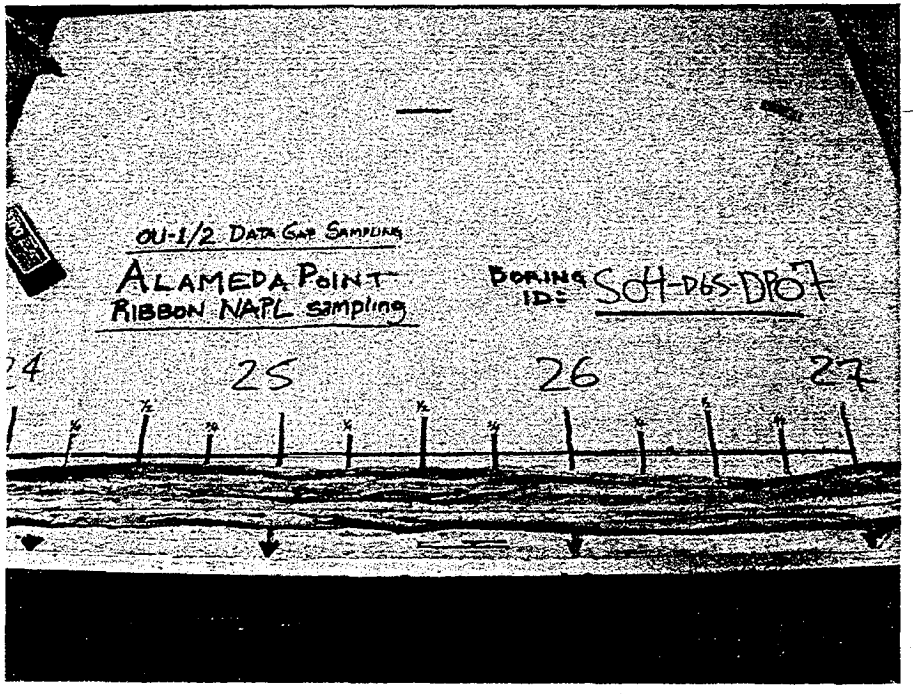

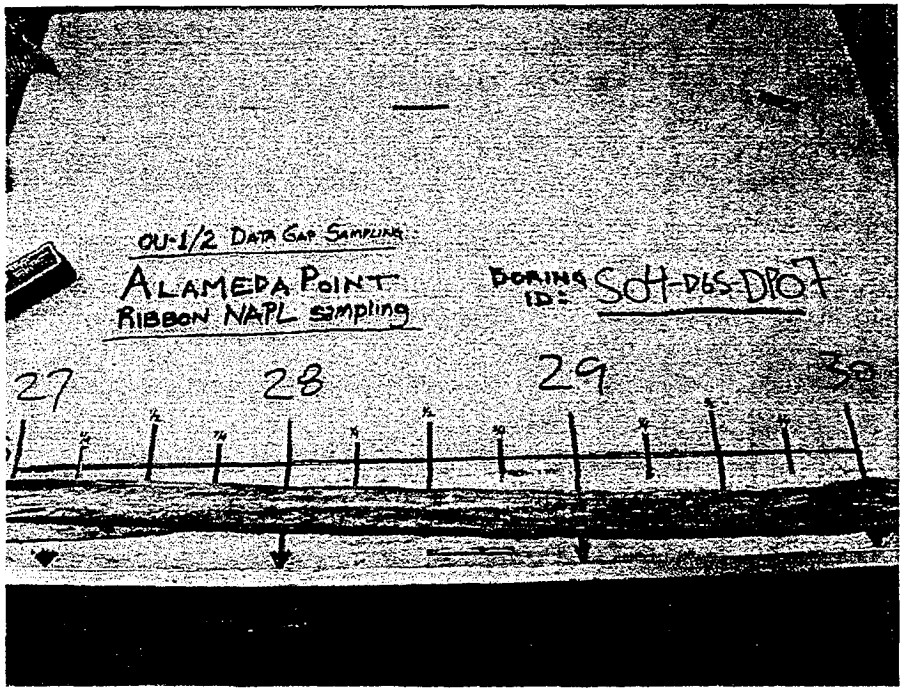

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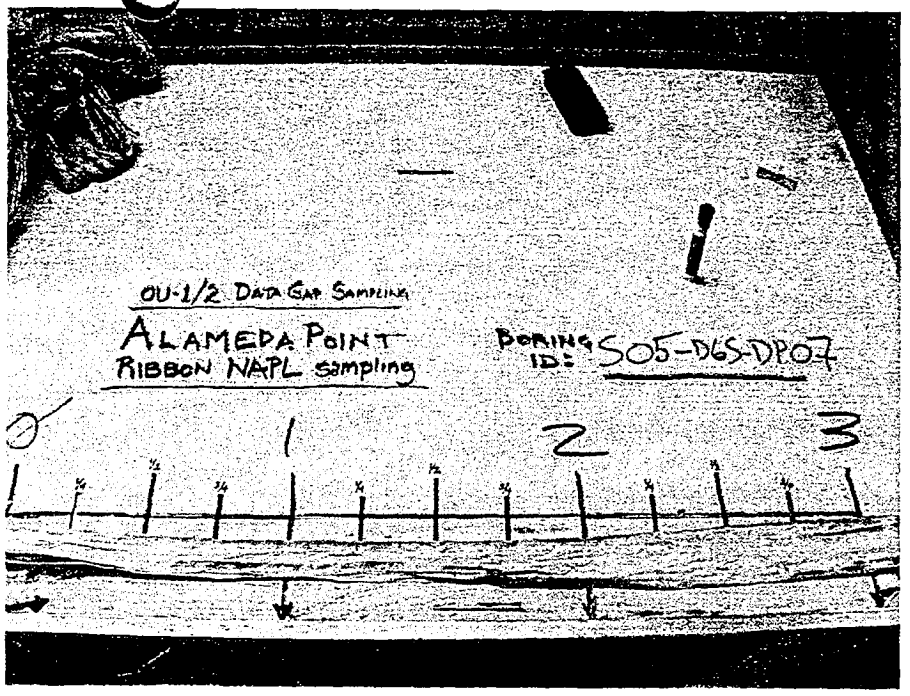

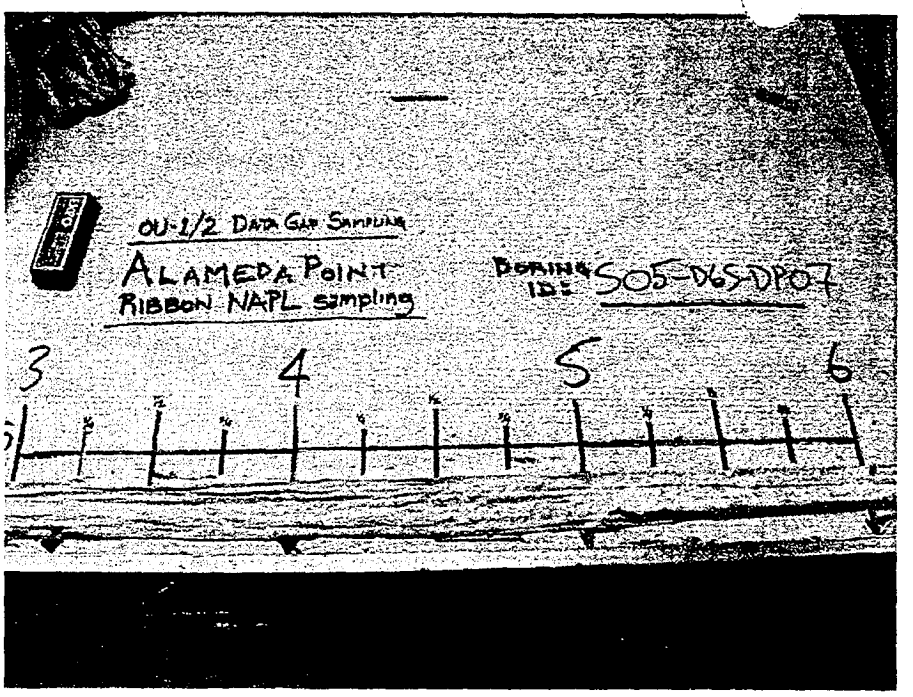

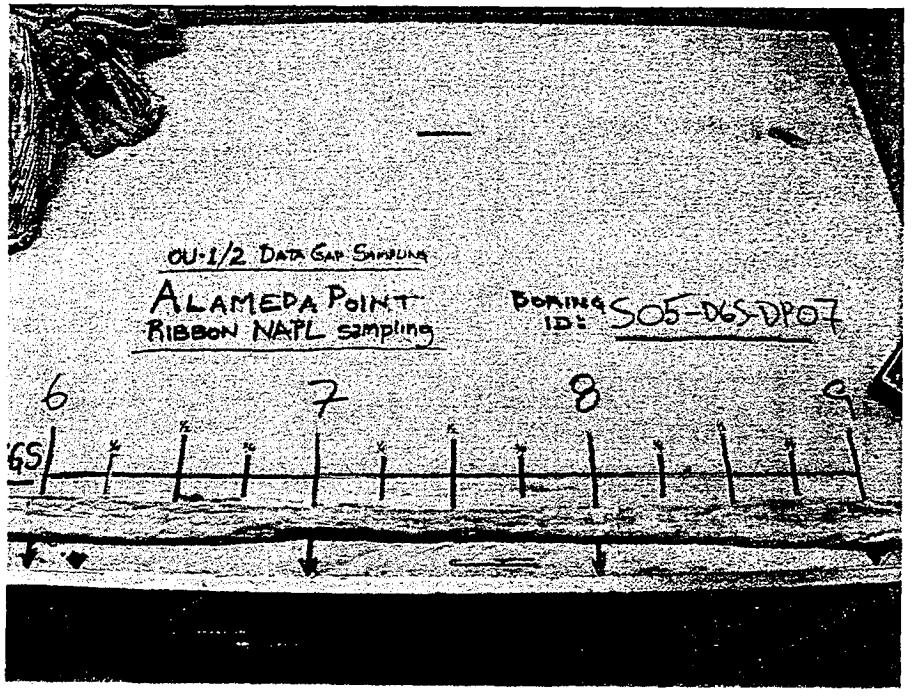

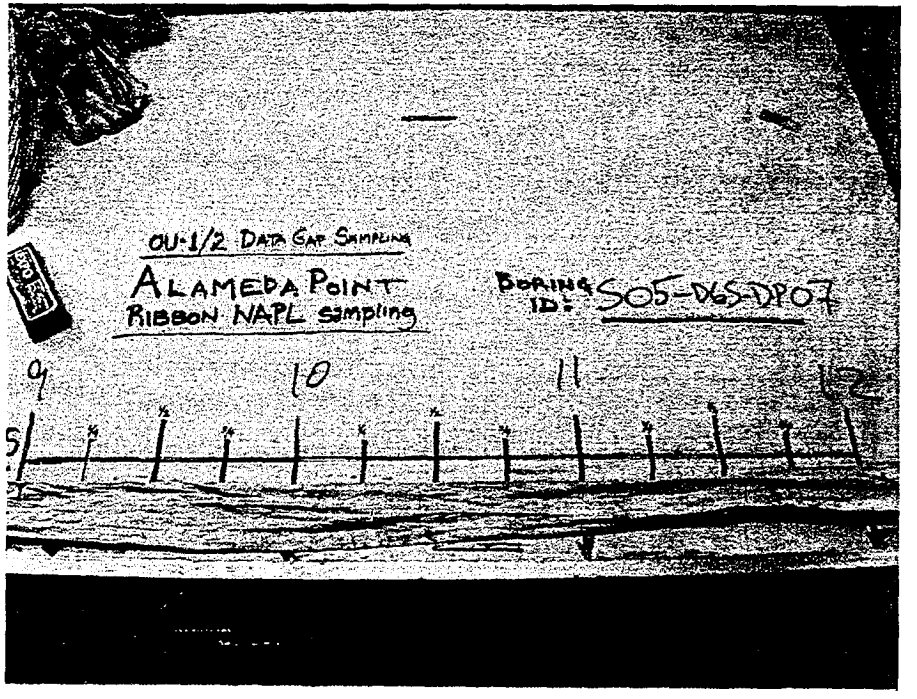

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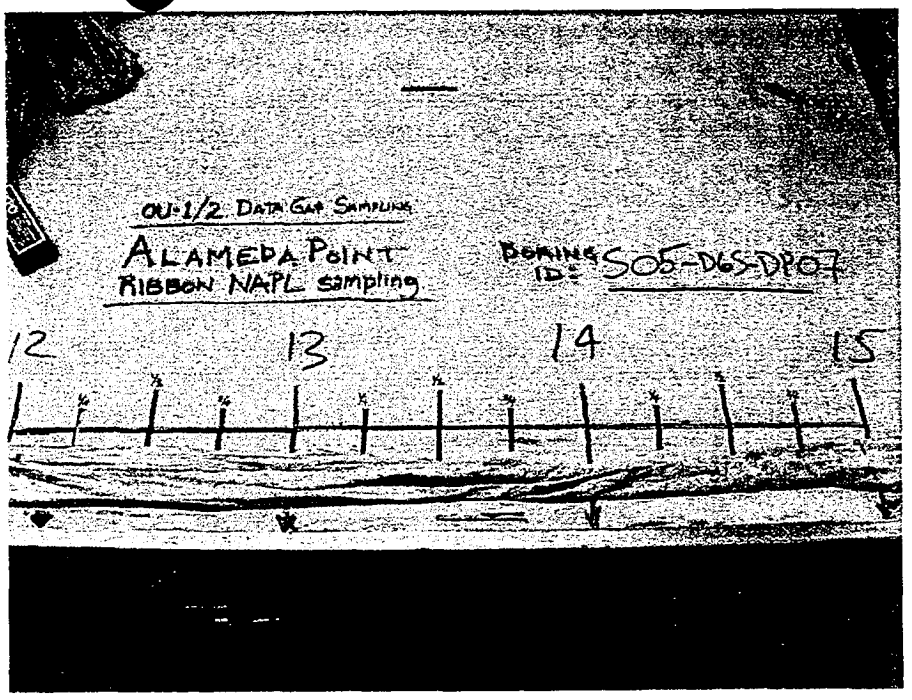

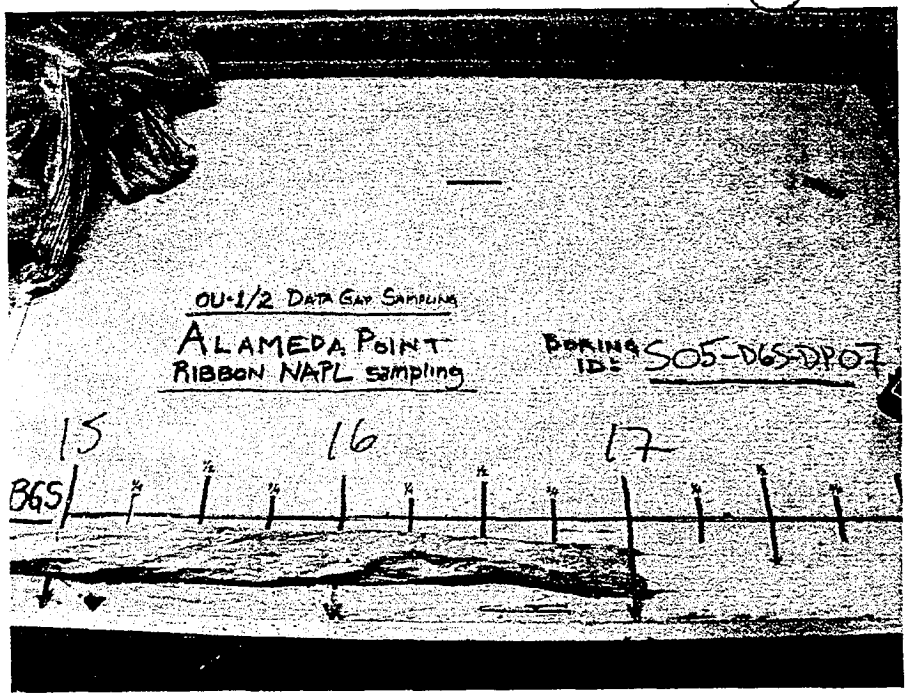

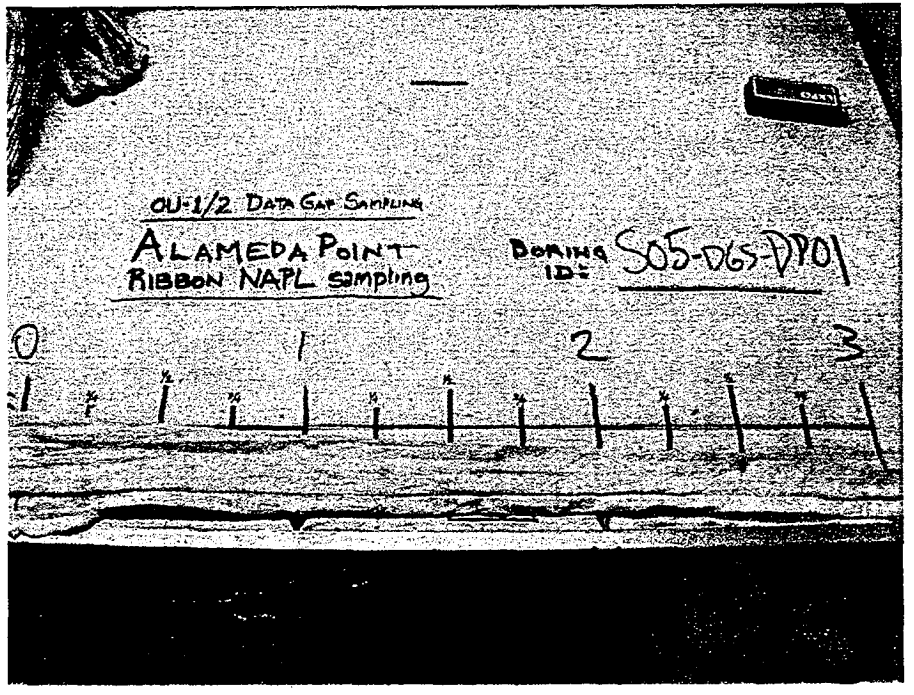

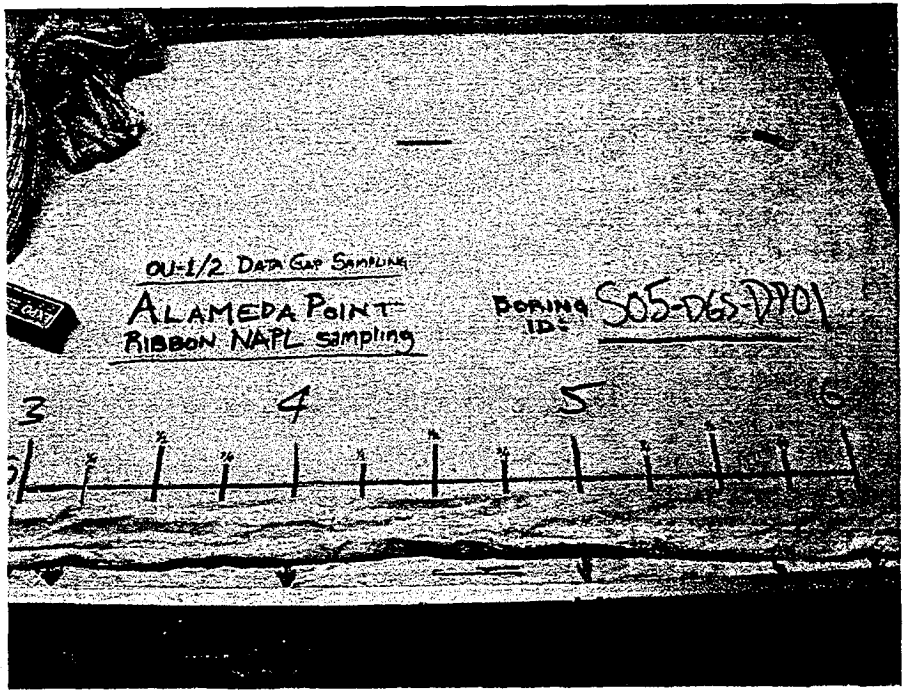

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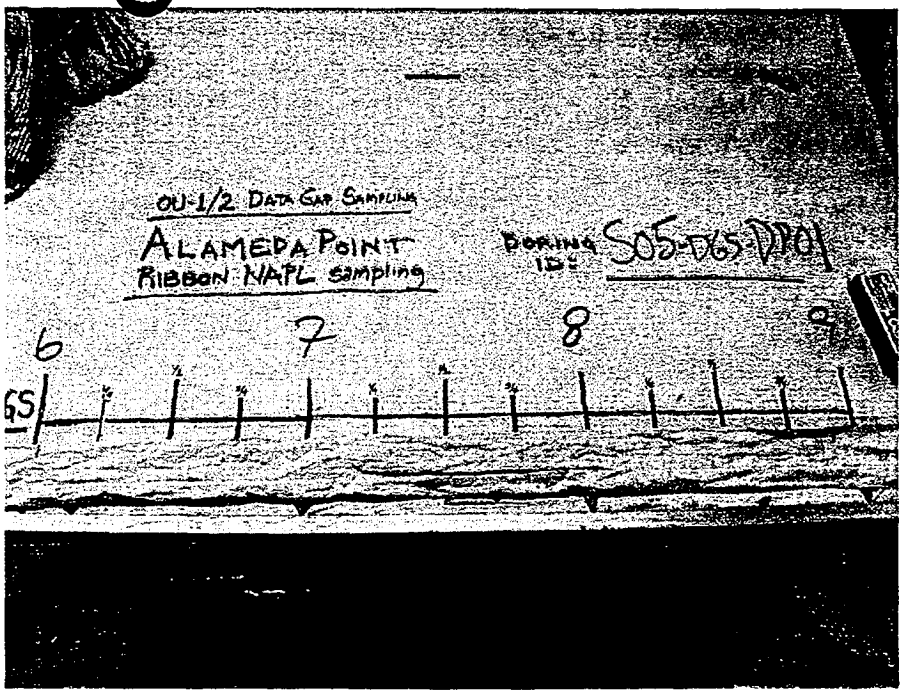

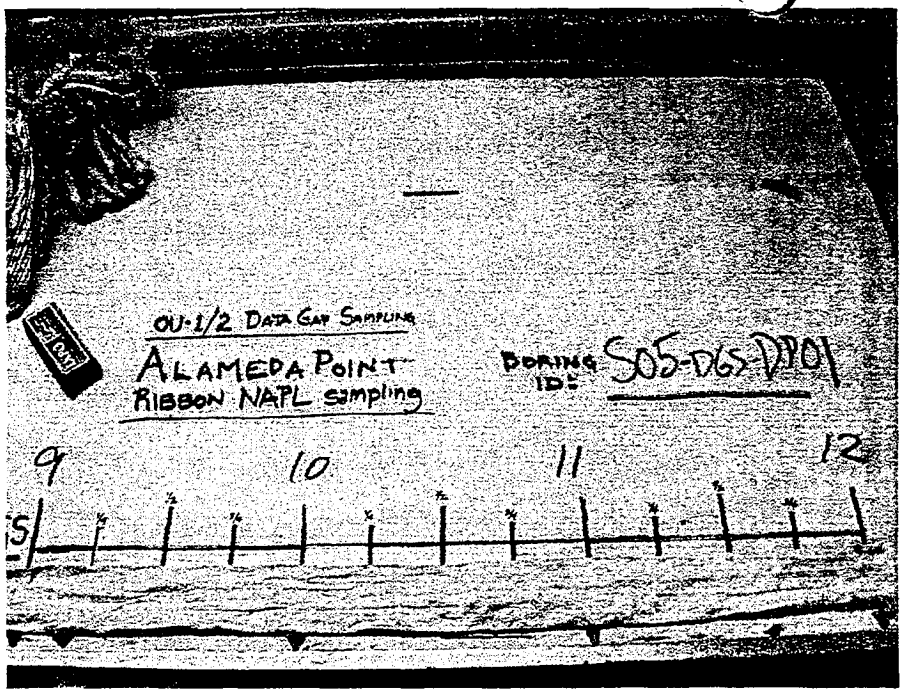

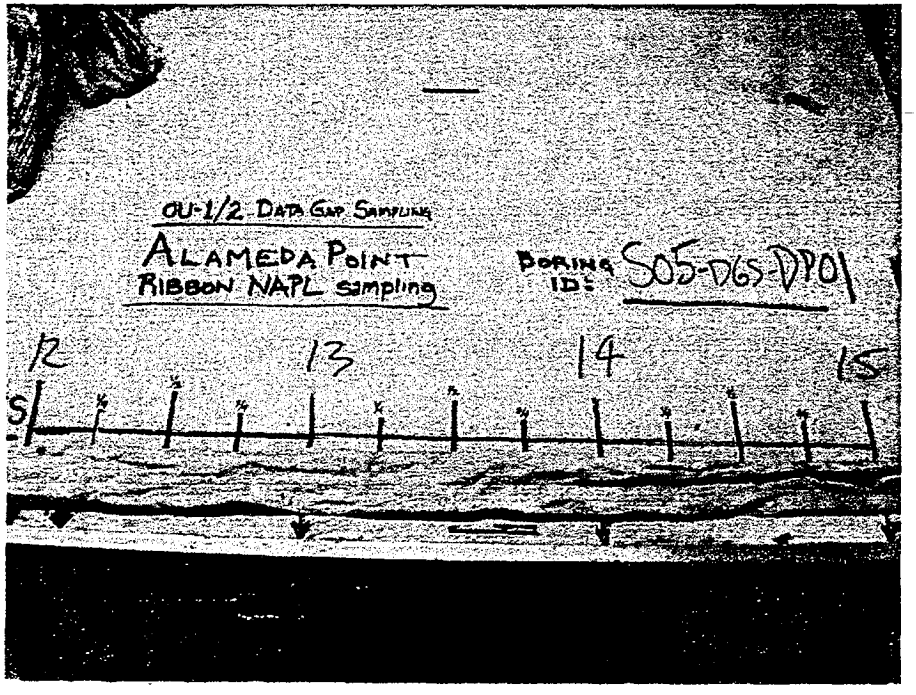

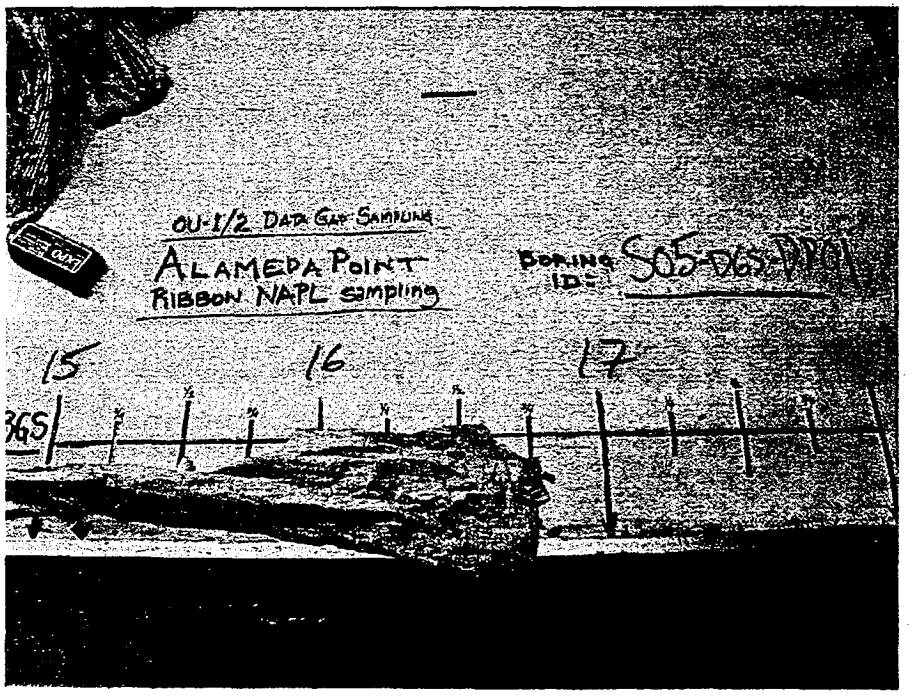

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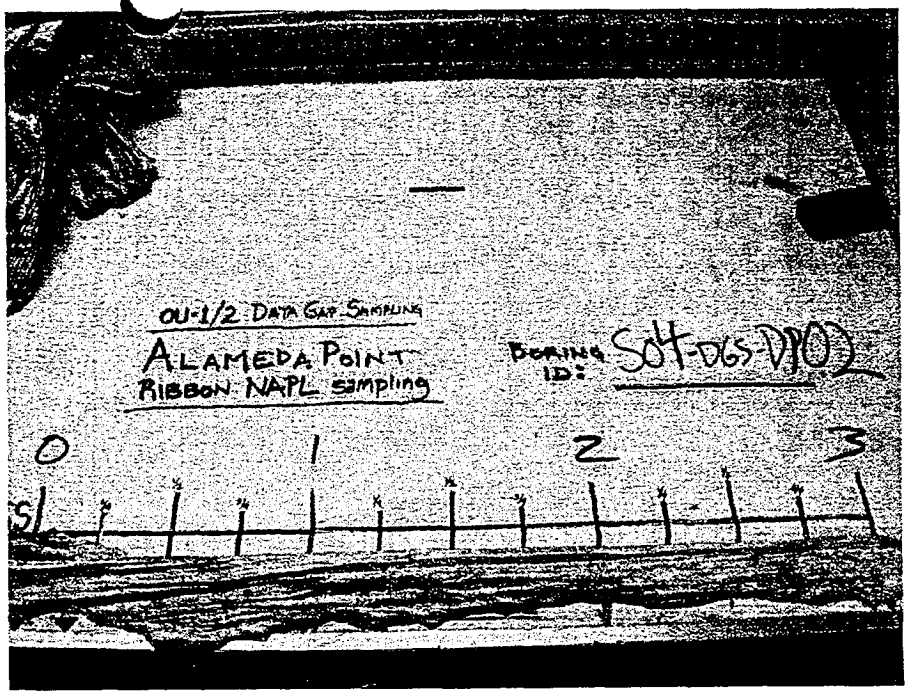

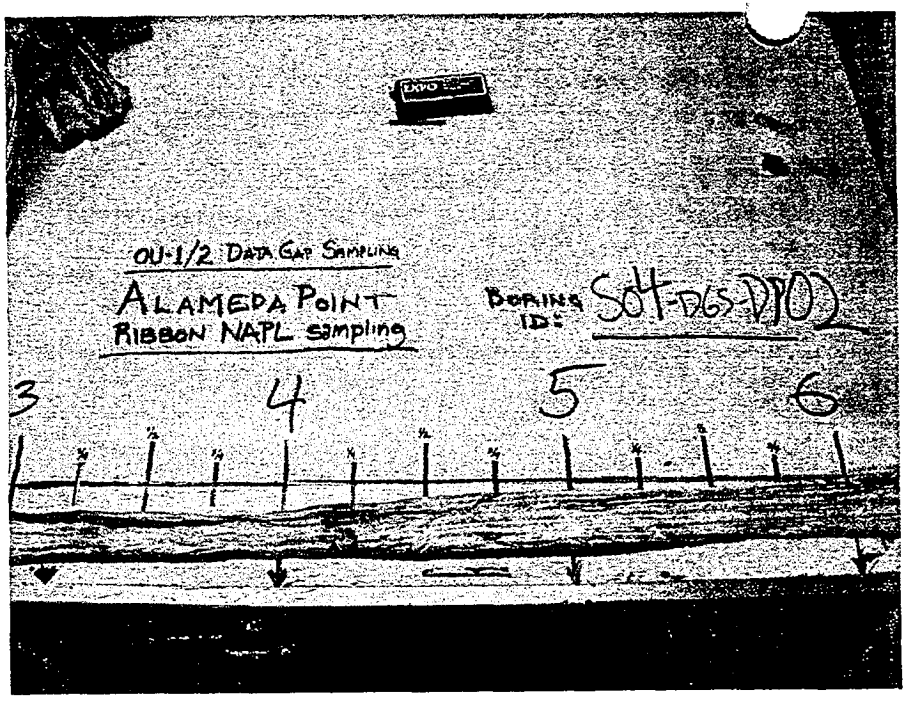

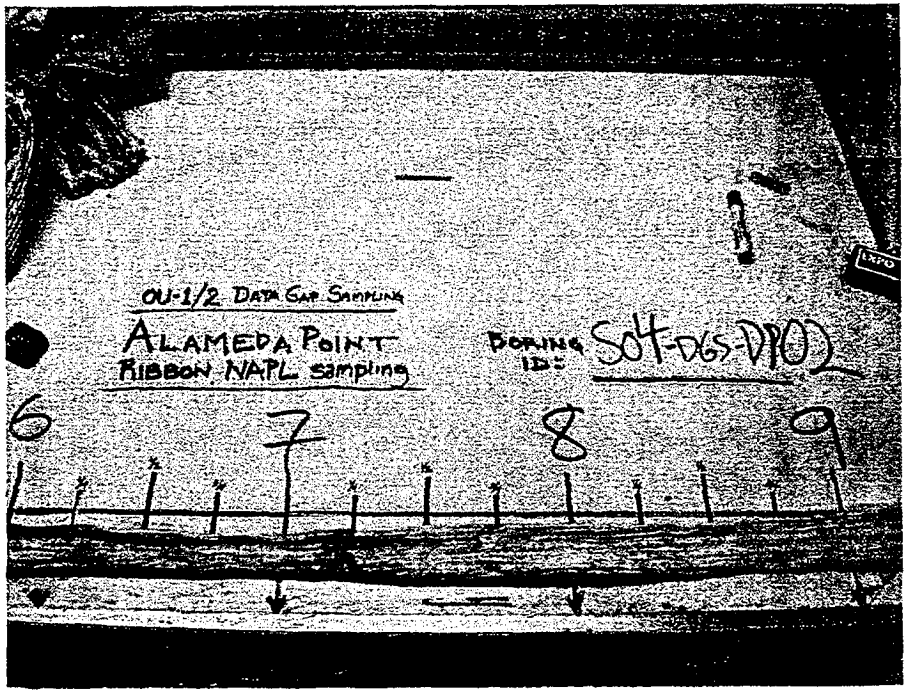

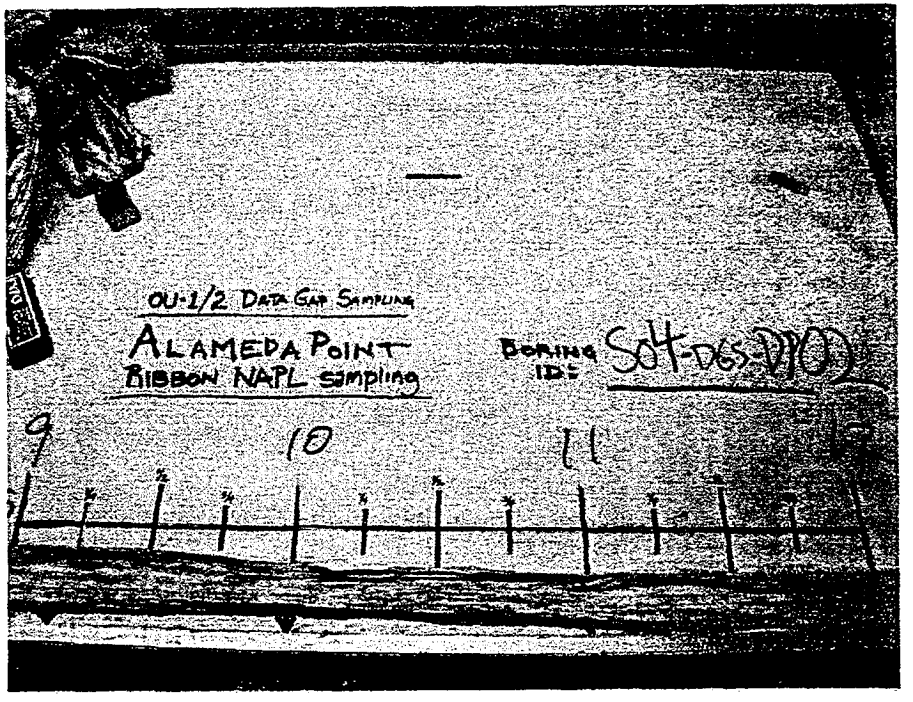

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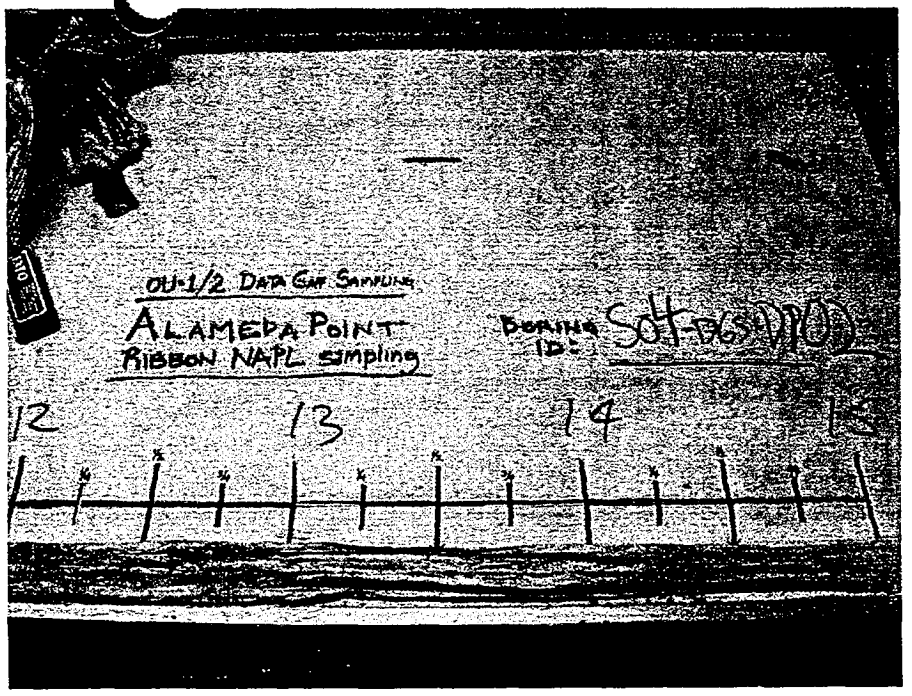

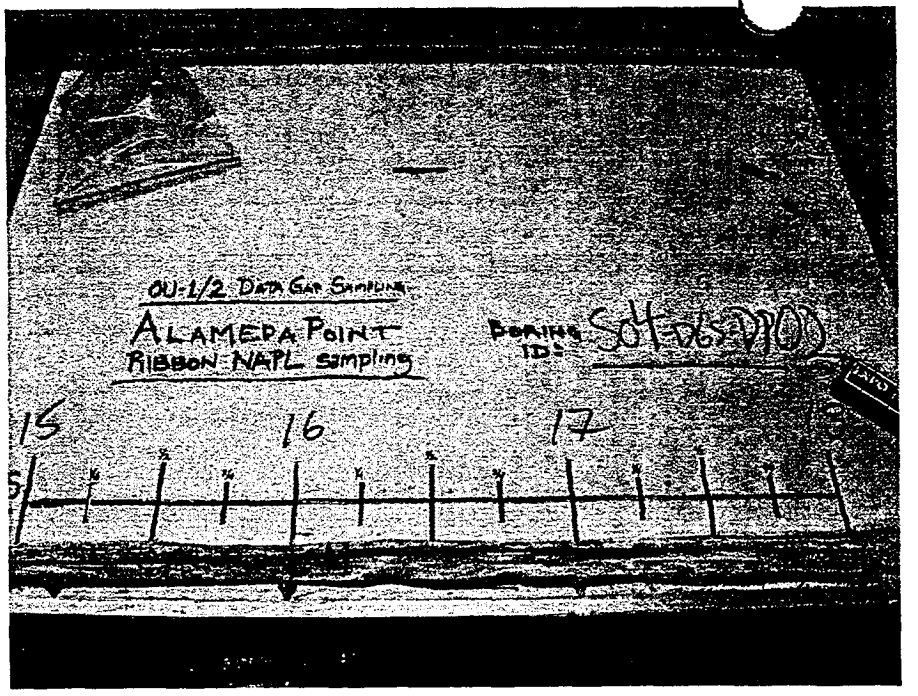

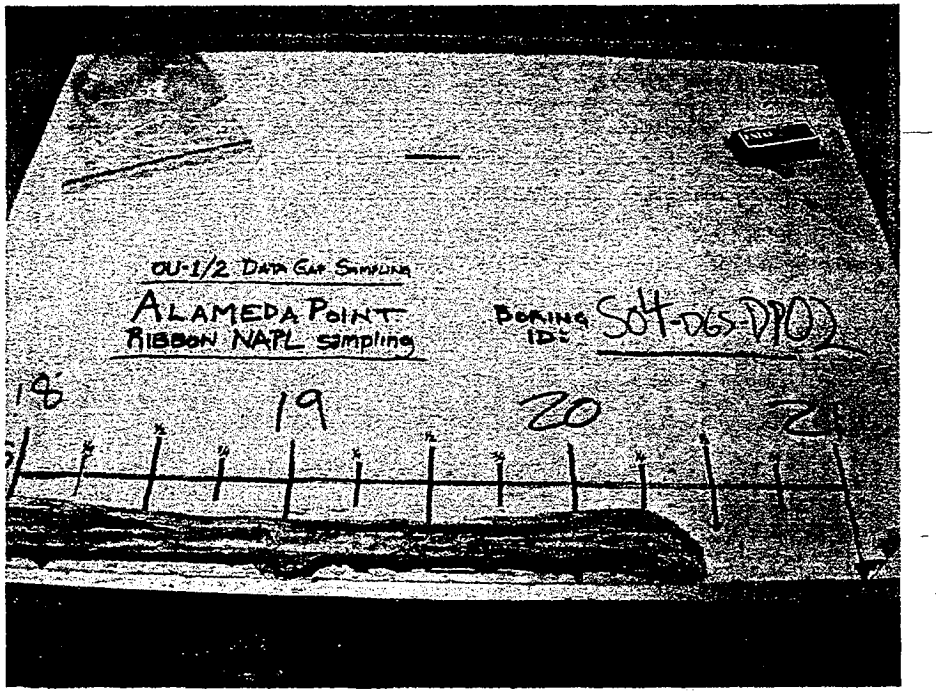

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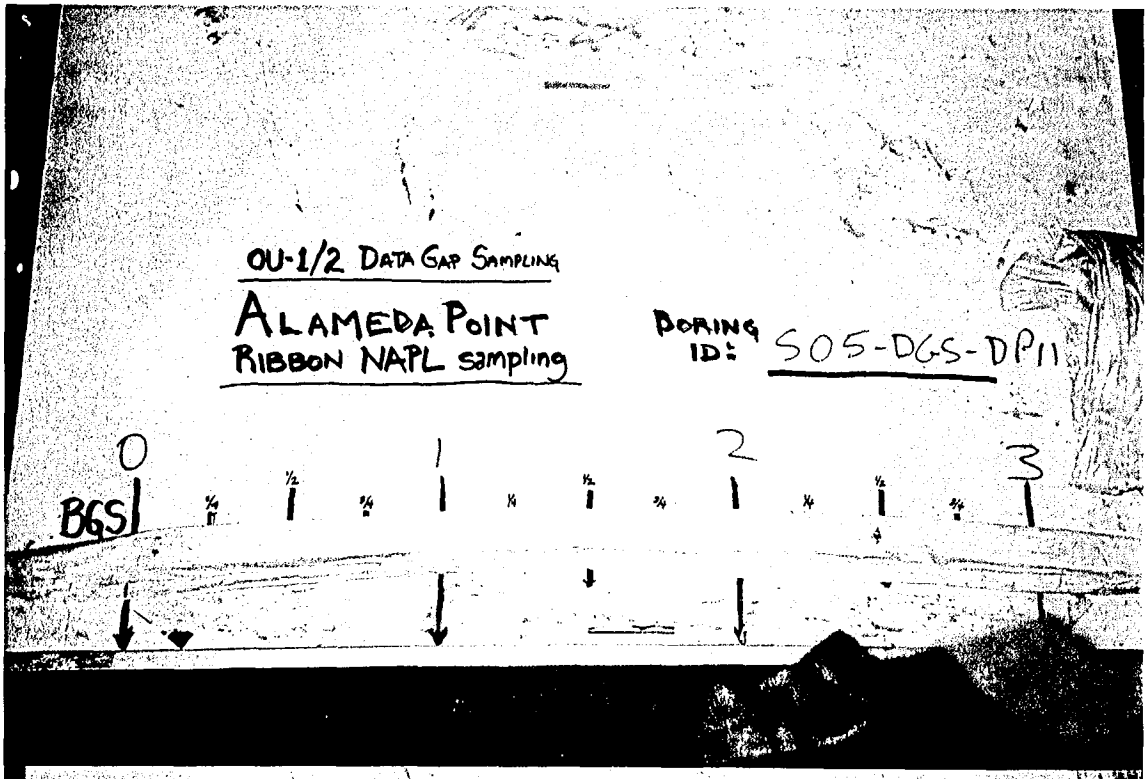
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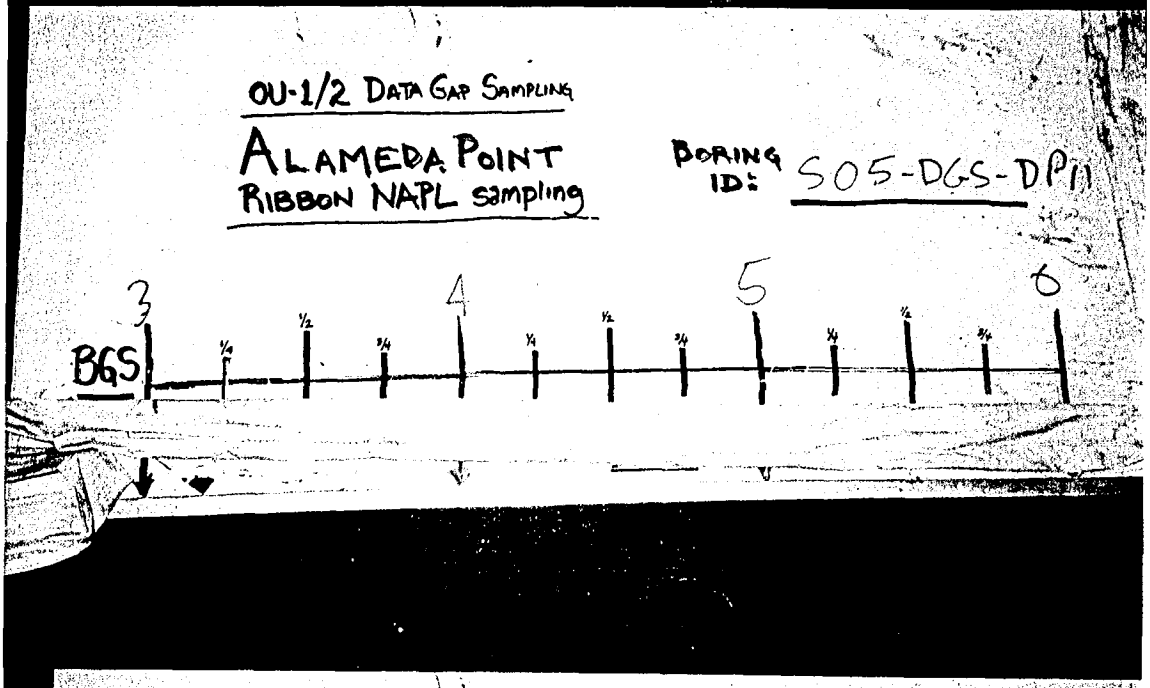
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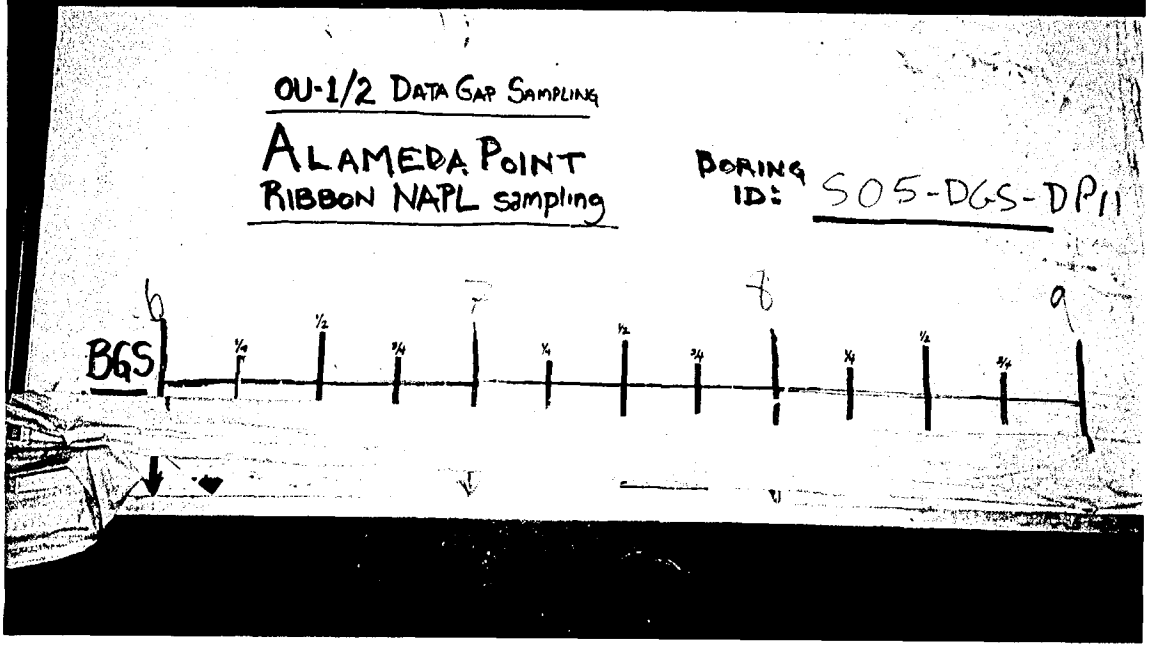
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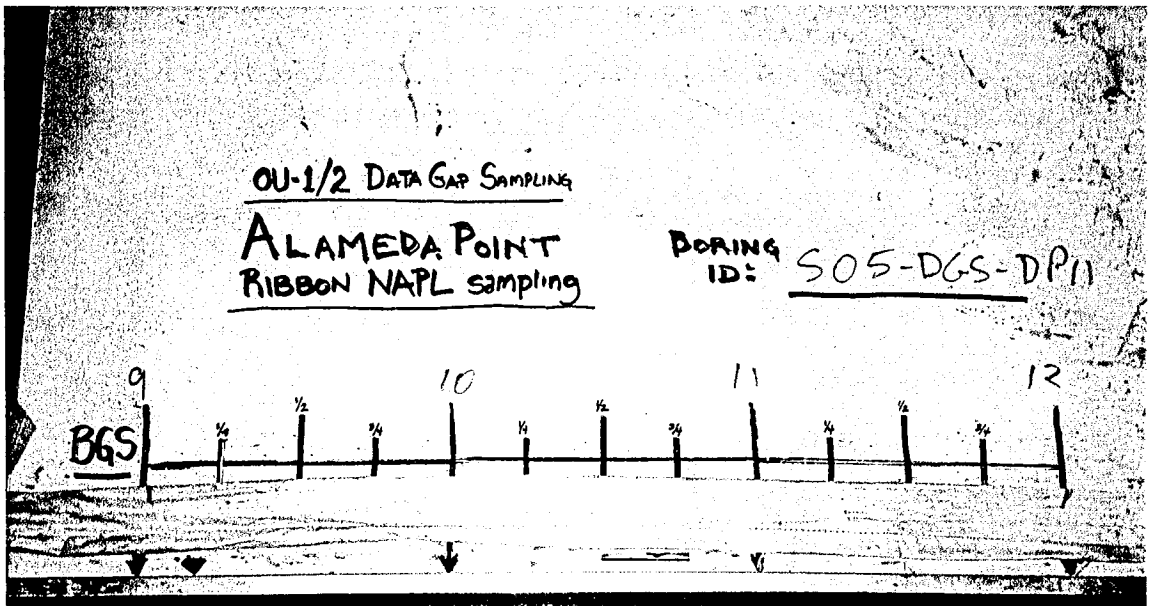
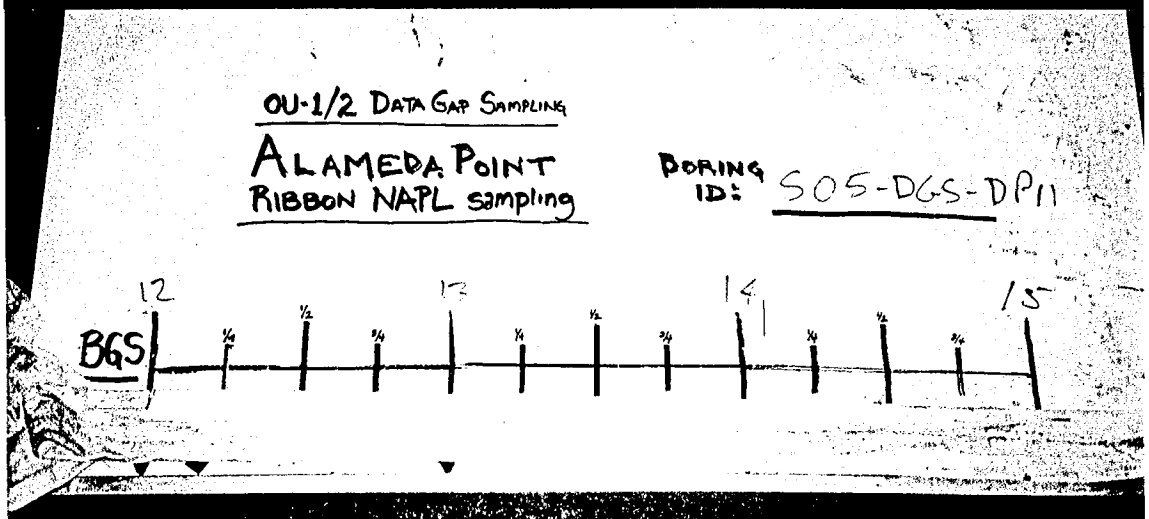
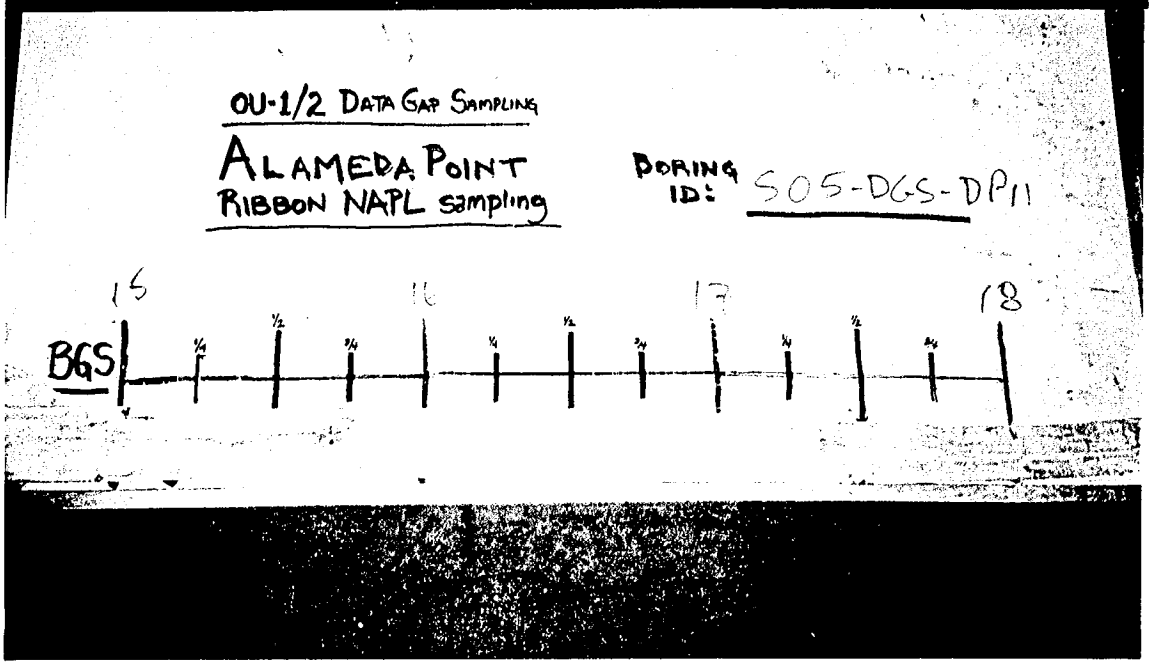
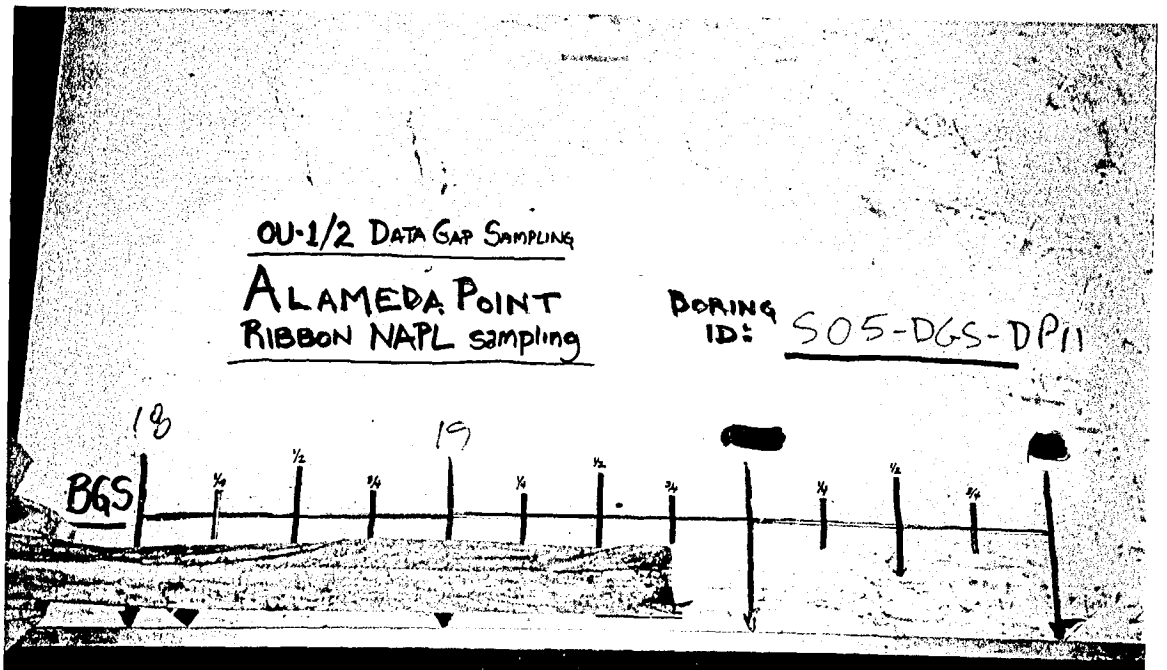
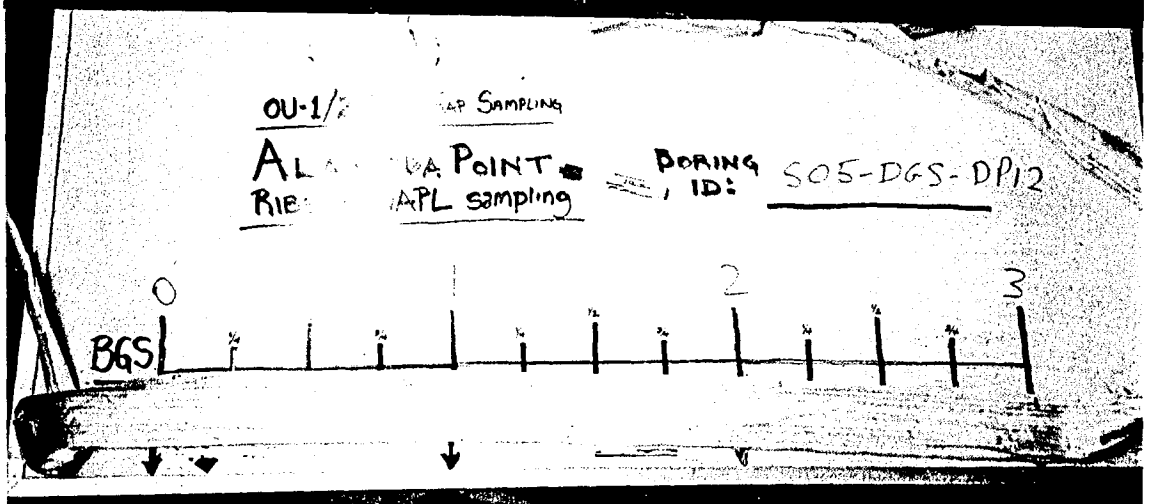
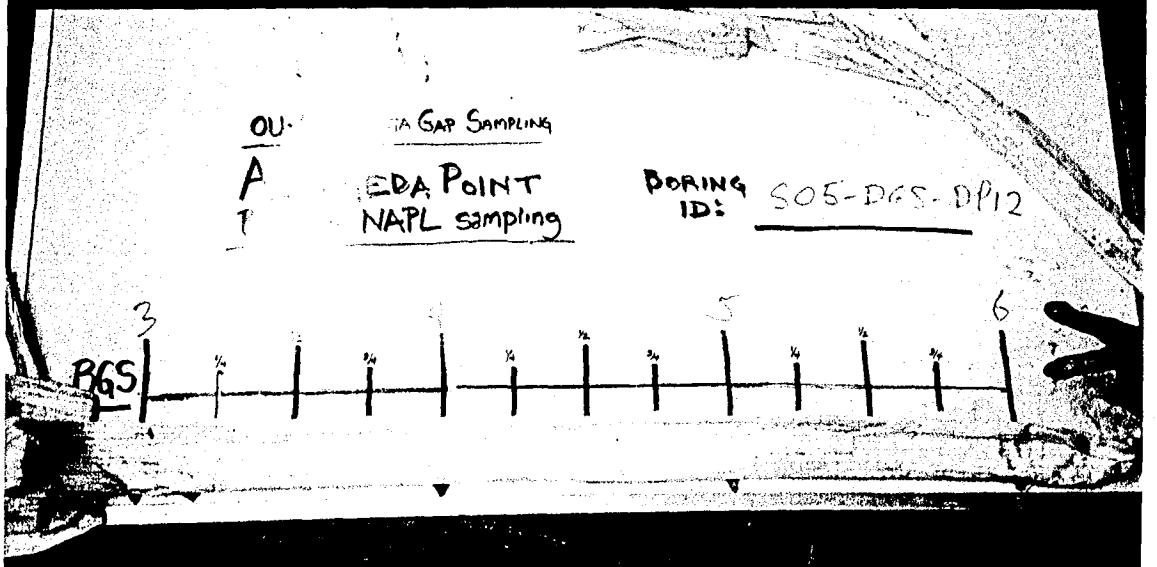

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: S05-DGS-DP11
BGS
9
10
11
12

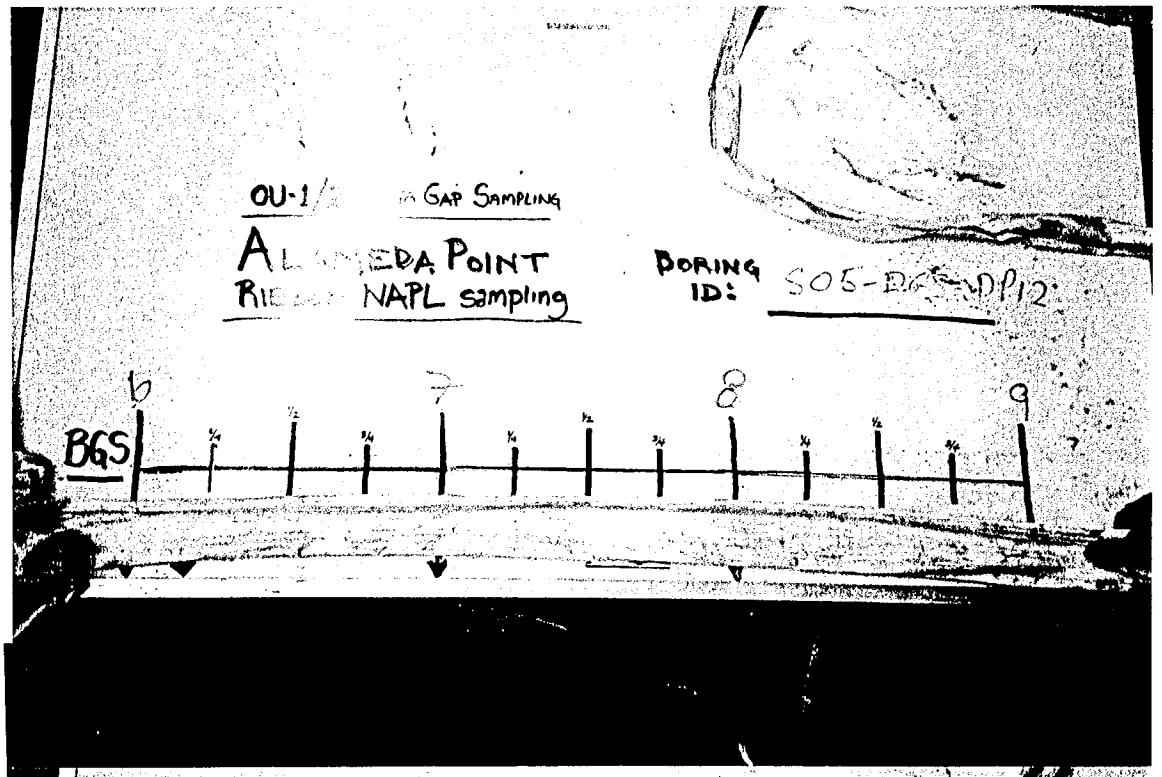

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: S05-DGS-DP11
BGS
12
13
14
15

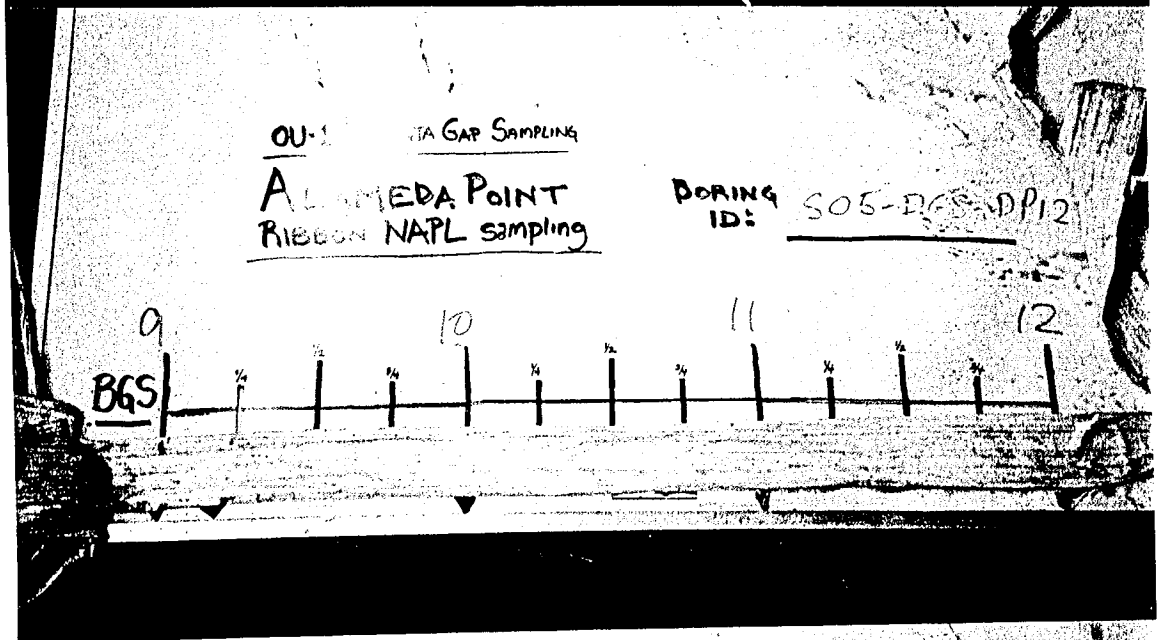

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: S05-DGS-DP11
BGS
15
16
17
18

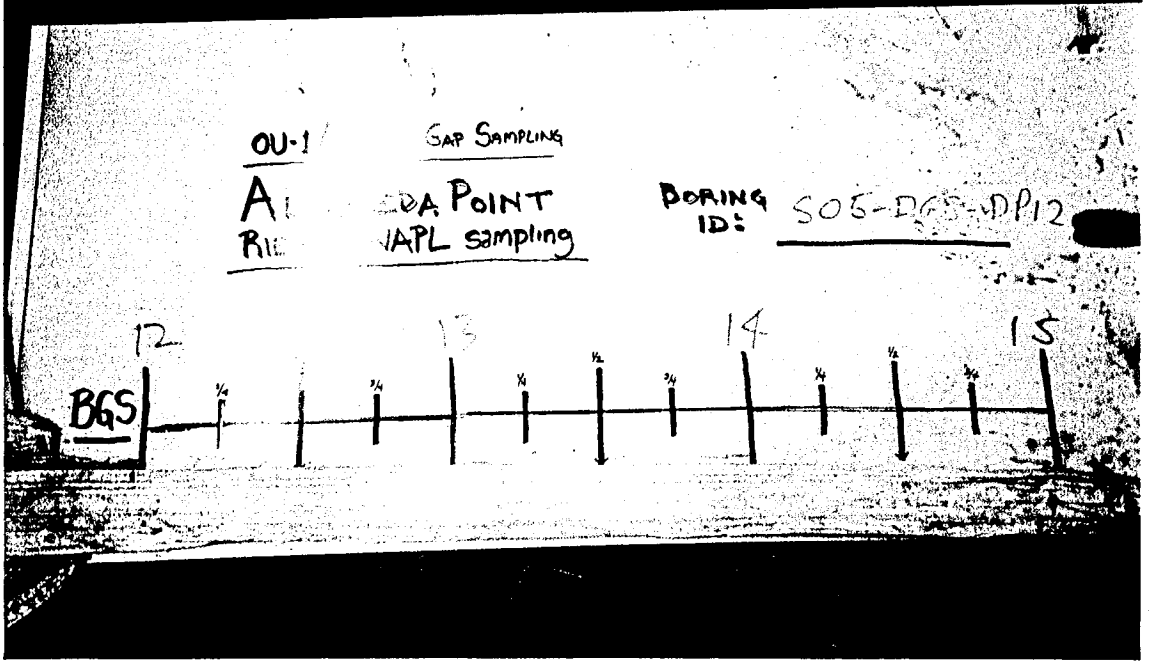

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: S05-DGS-DP11
18
19
BGS

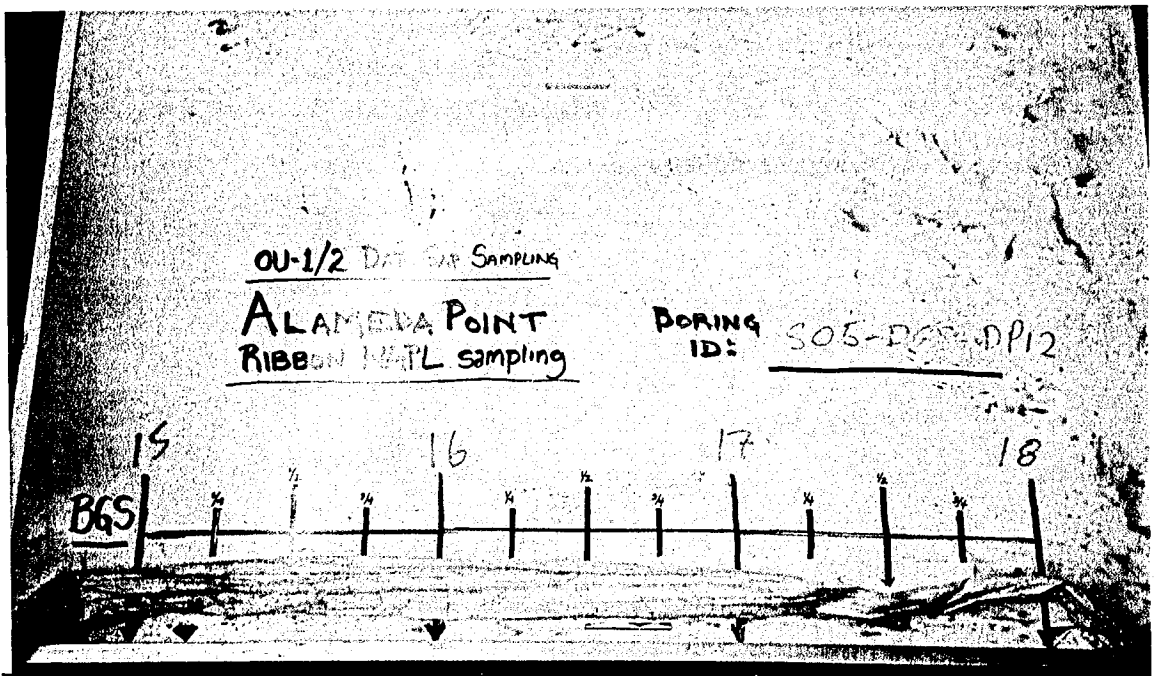

BORING ID: S05-DGS-DP12
0
1
2
3
BGS

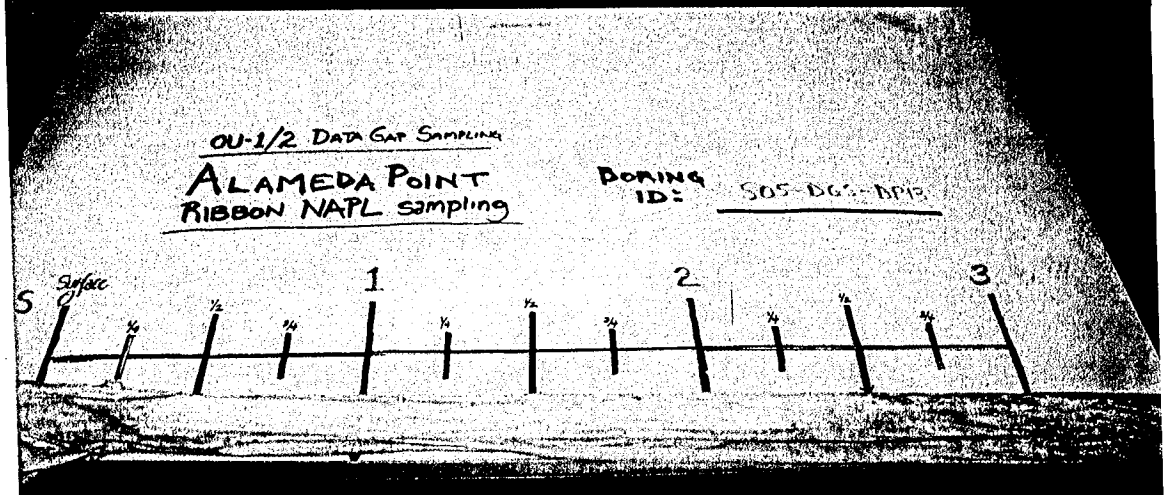

NAPL sampling
BORING ID: S05-DGS-DP12
3
5
6
BGS

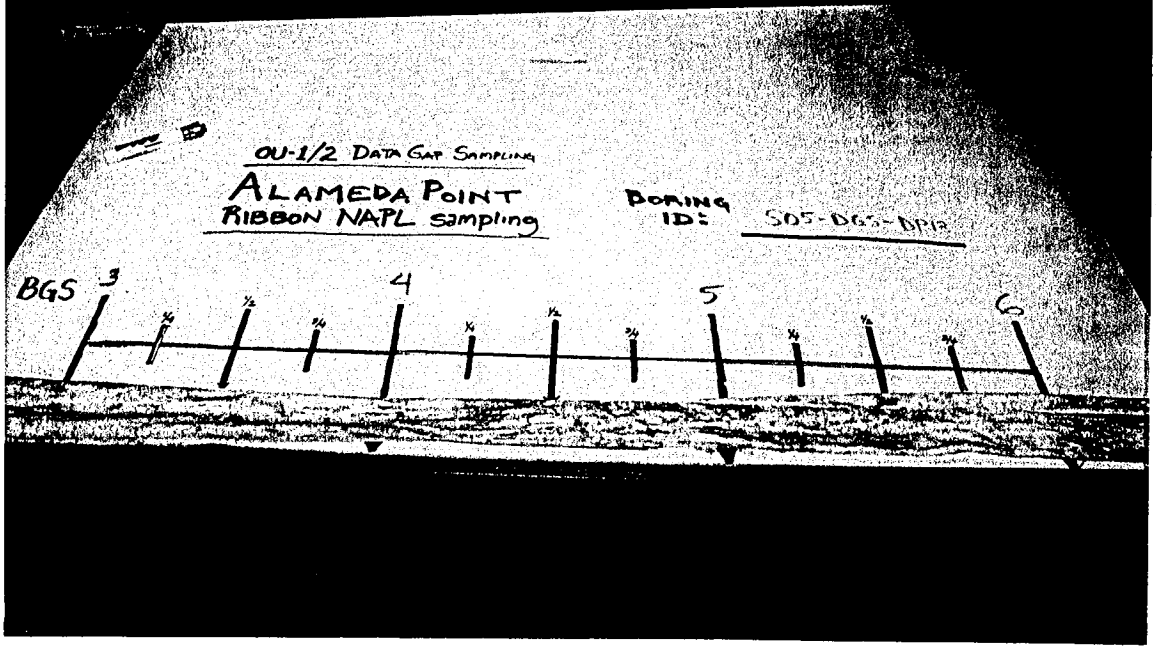

OU-1
GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID:
BGS
6
7
8
9

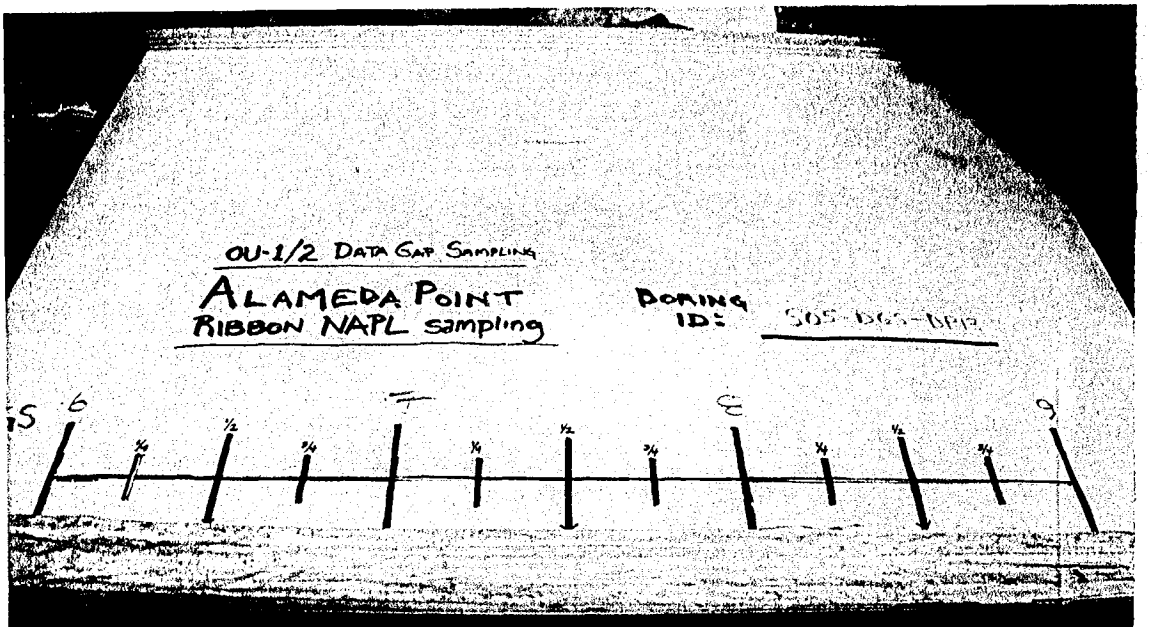

OU-1
GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID:
BGS
9
10
11
12

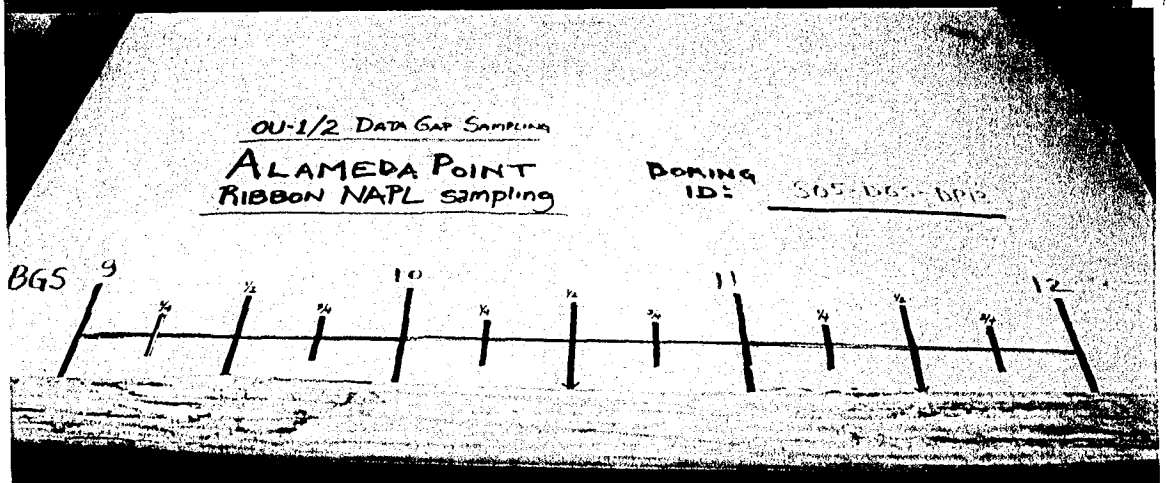

OU-1
GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID:
BGS
12
13
14
15

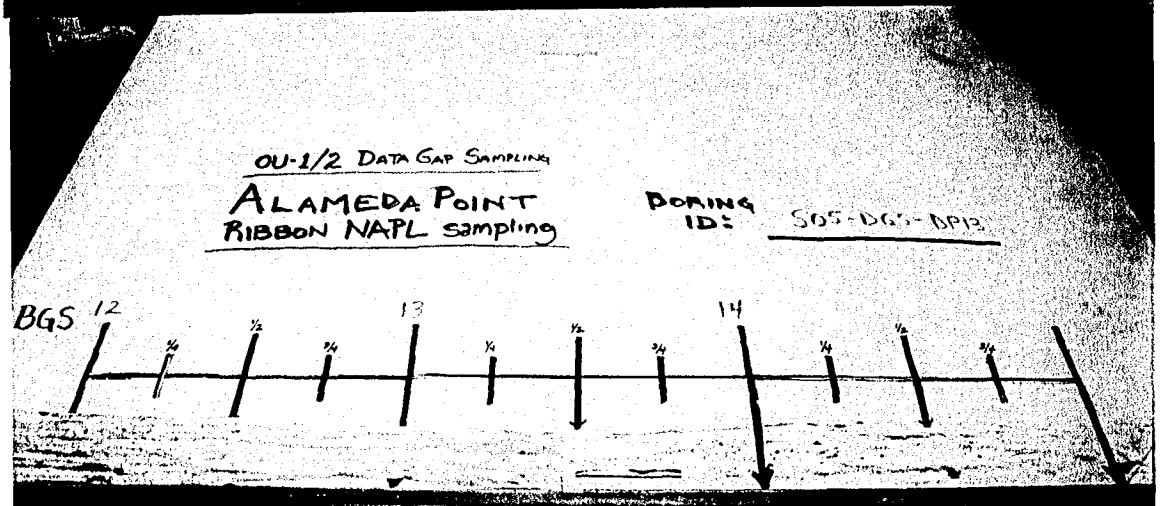

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID:
BGS
15
16
17
18

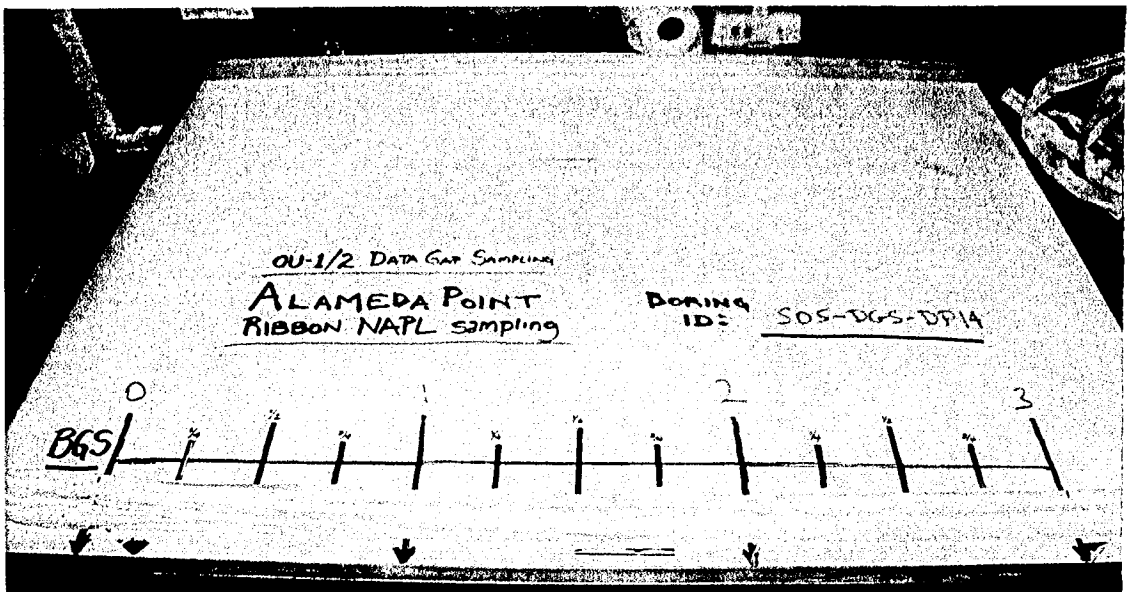

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID:
Surface
1
2
3

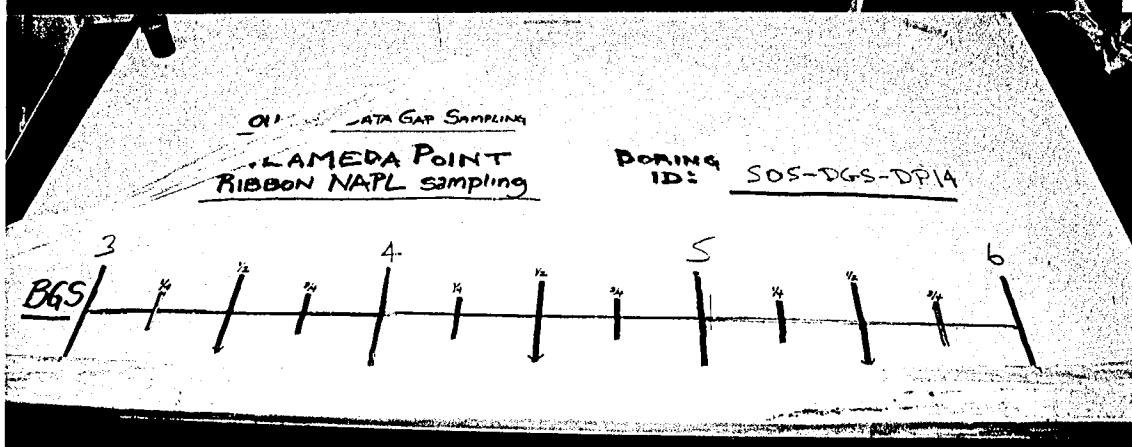

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID:
BGS
3
4
5
6

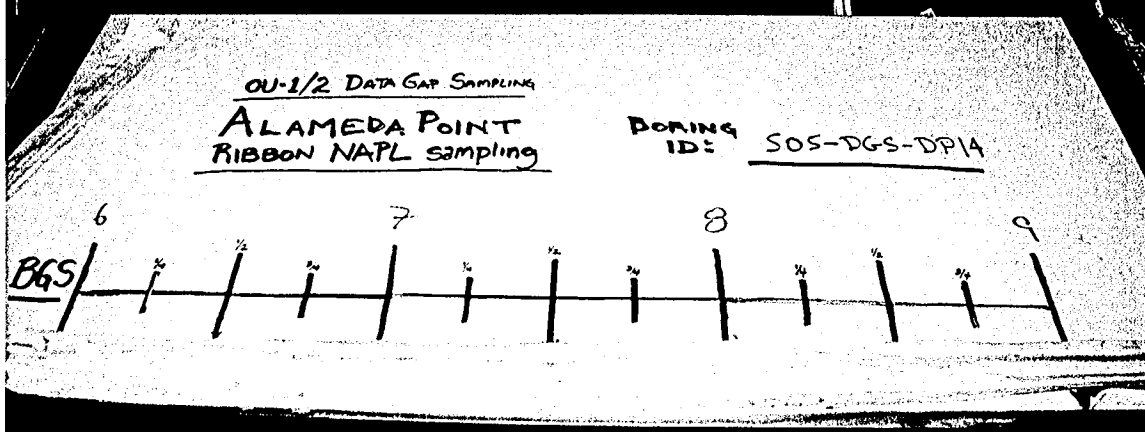

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: S05-DG5-BP12
BGS 6
9

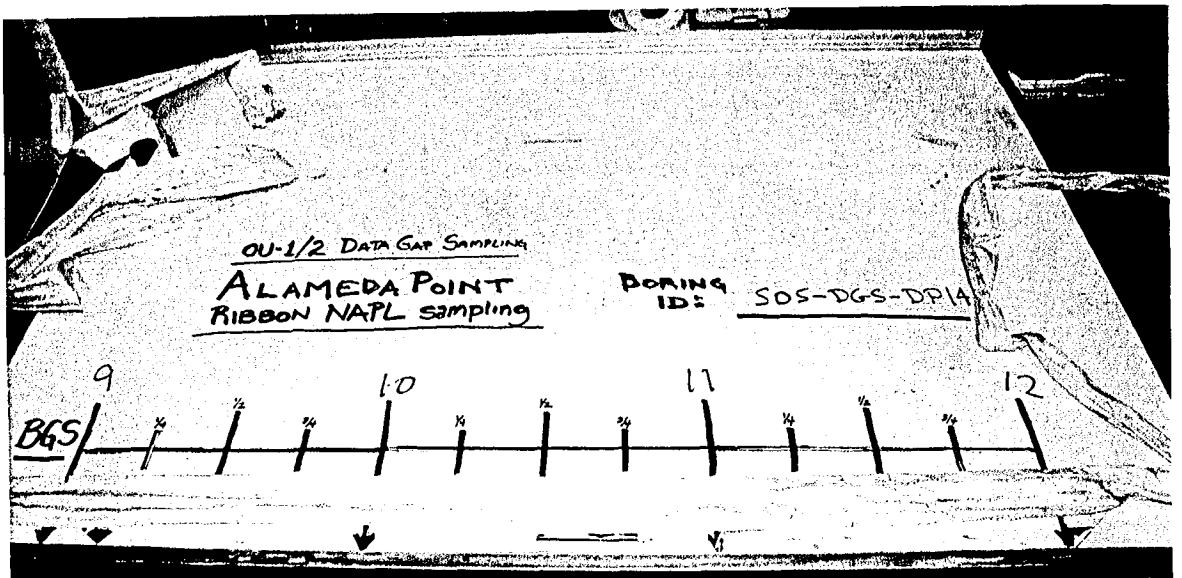

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: S05-DG5-BP12
BGS 9
10
11
12

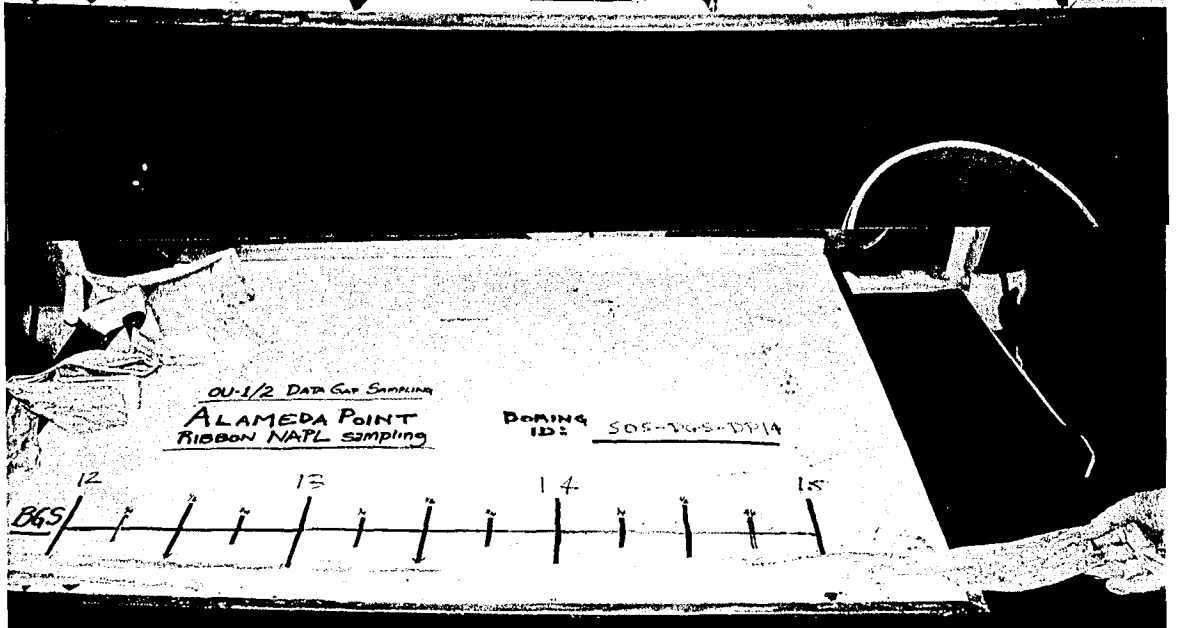

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: S05-DG5-BP13
BGS 12
13
14

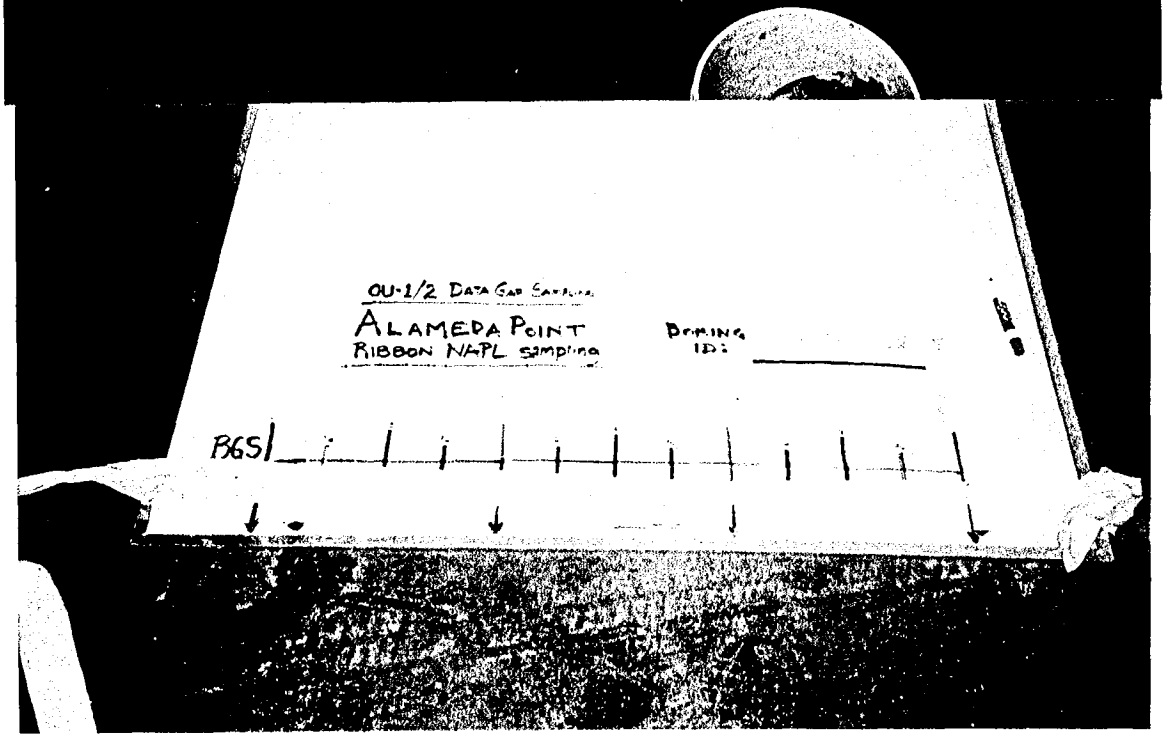

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: SOS-DGS-DP14
BGS
0
1
2
3

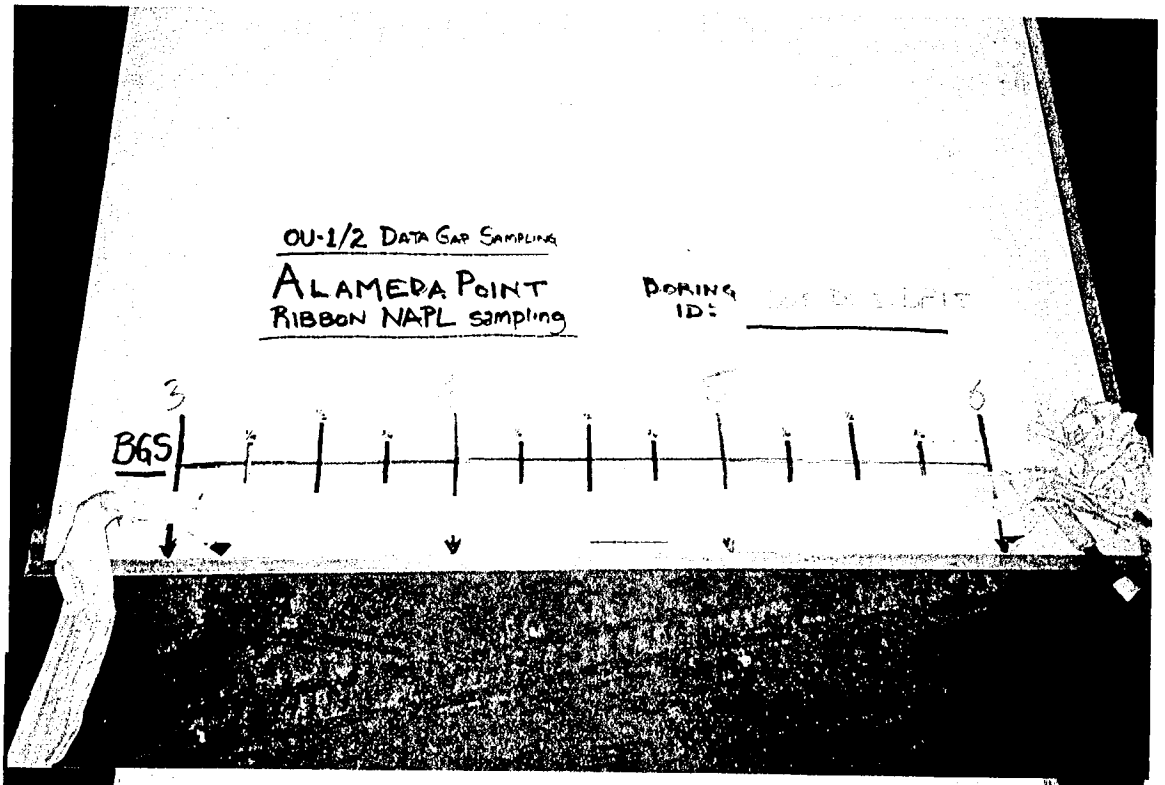

DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: SOS-DGS-DP14
BGS
3
4
5
6

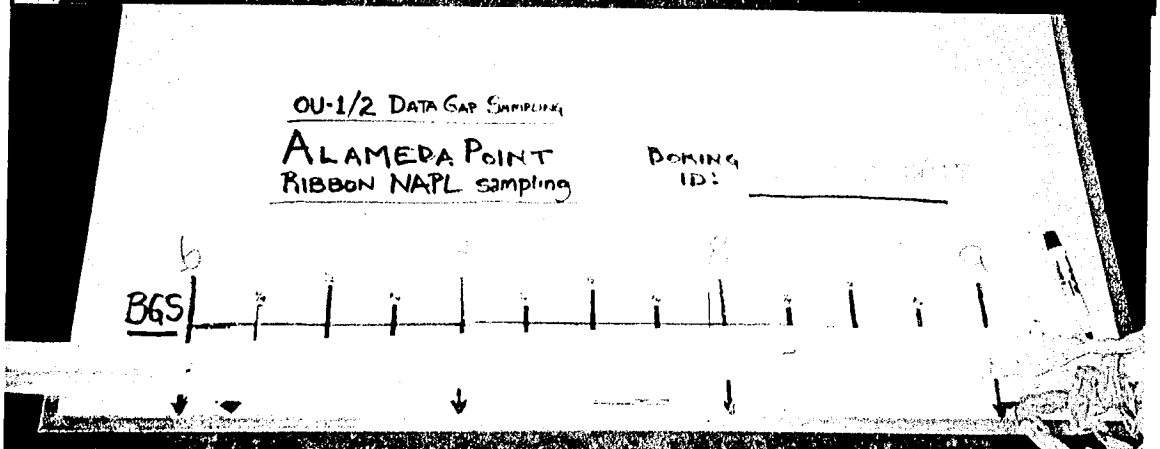

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: SOS-DGS-DP14
BGS
6
7
8
9

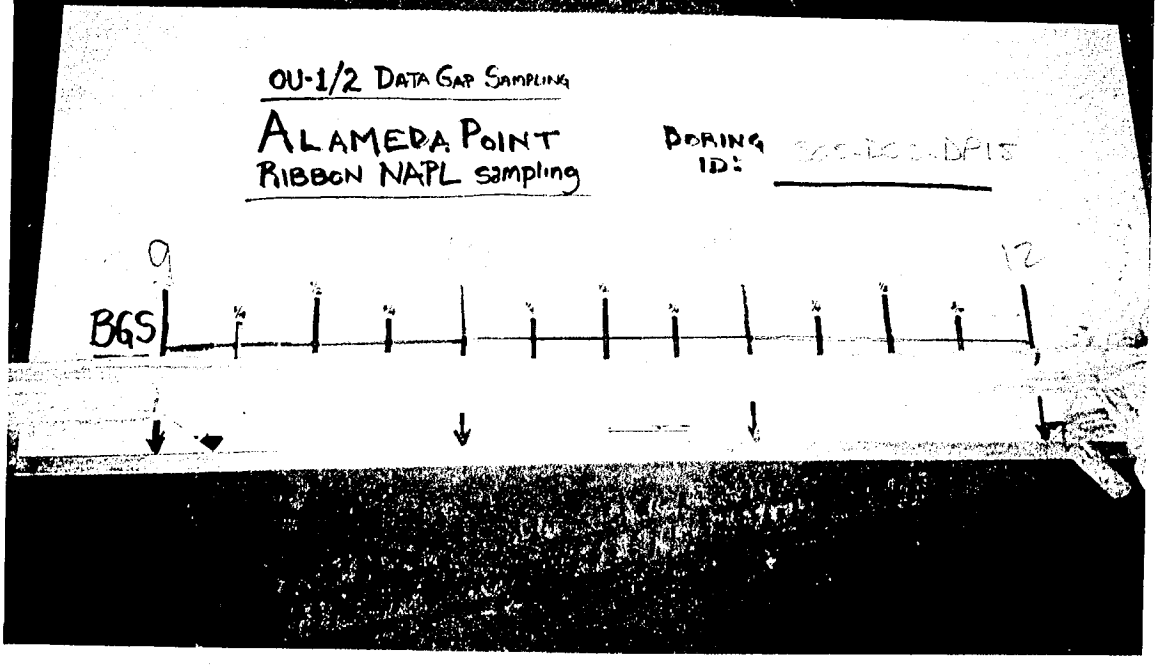

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: SOS-DGS-DP14
9
10
11
12
BGS

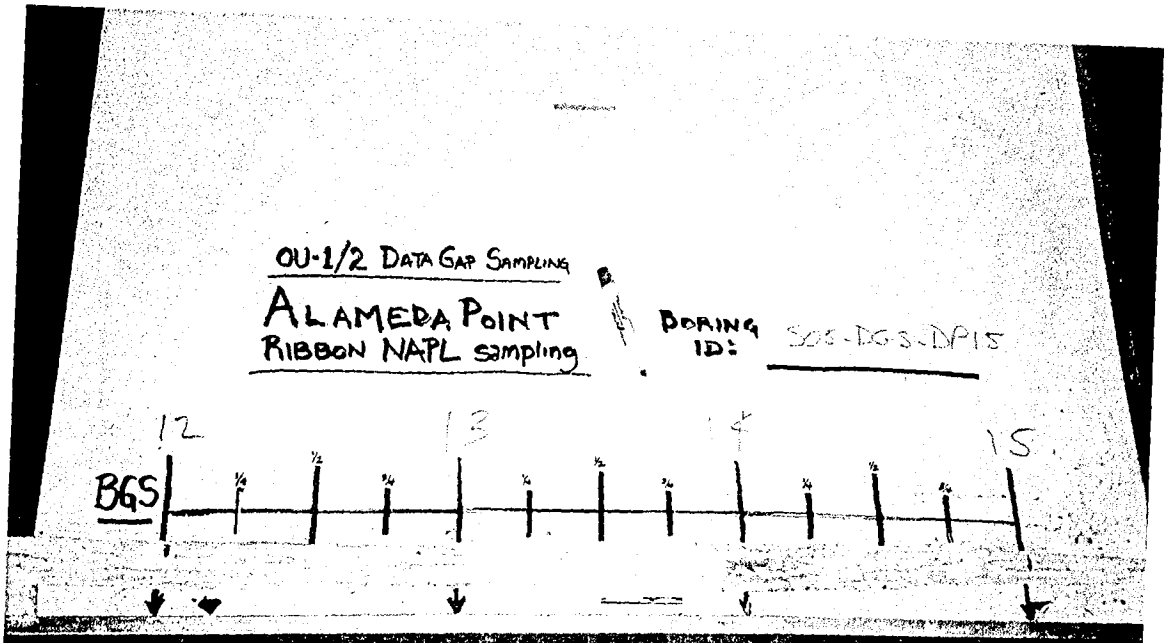

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: SOS-DGS-DP14
12
13
14
15
BGS

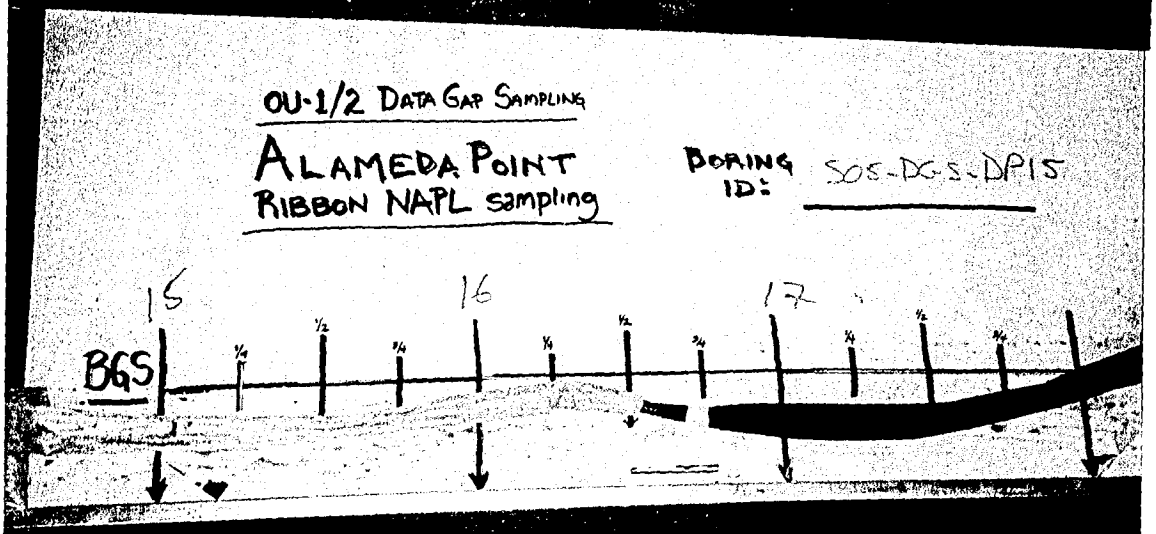

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID:
BGS

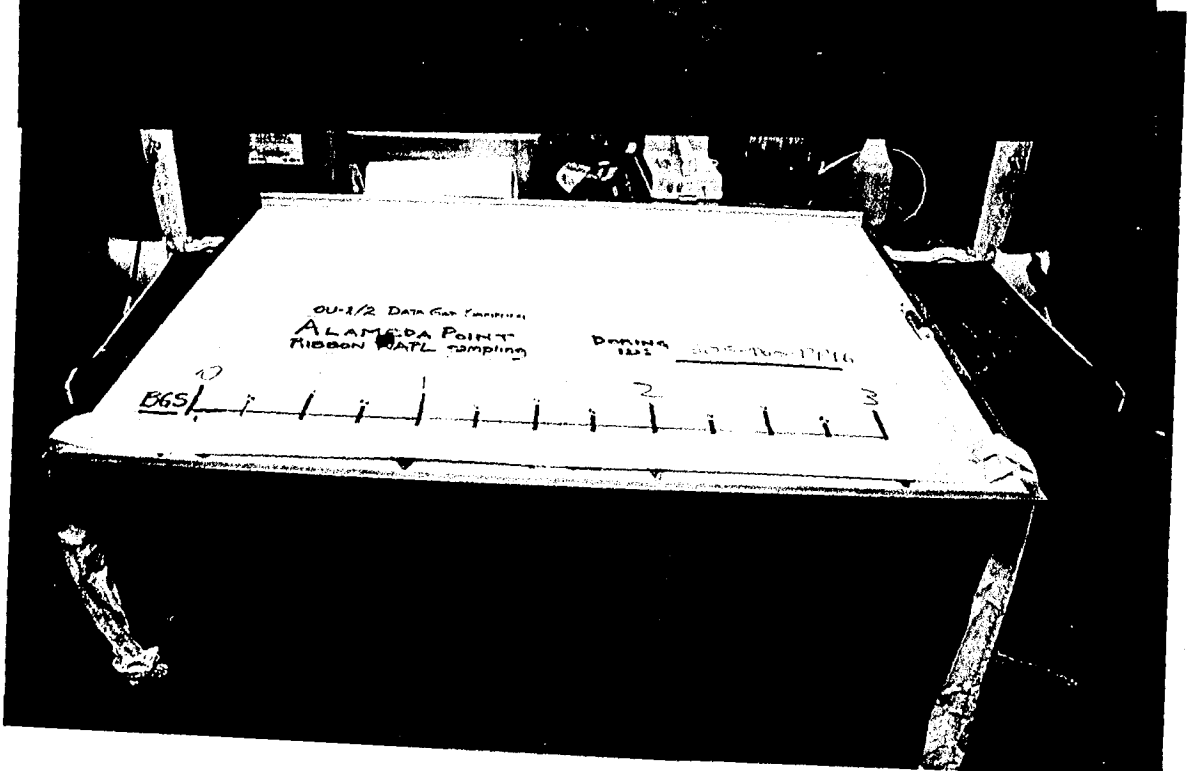

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
DORING ID:
BGS
3
6

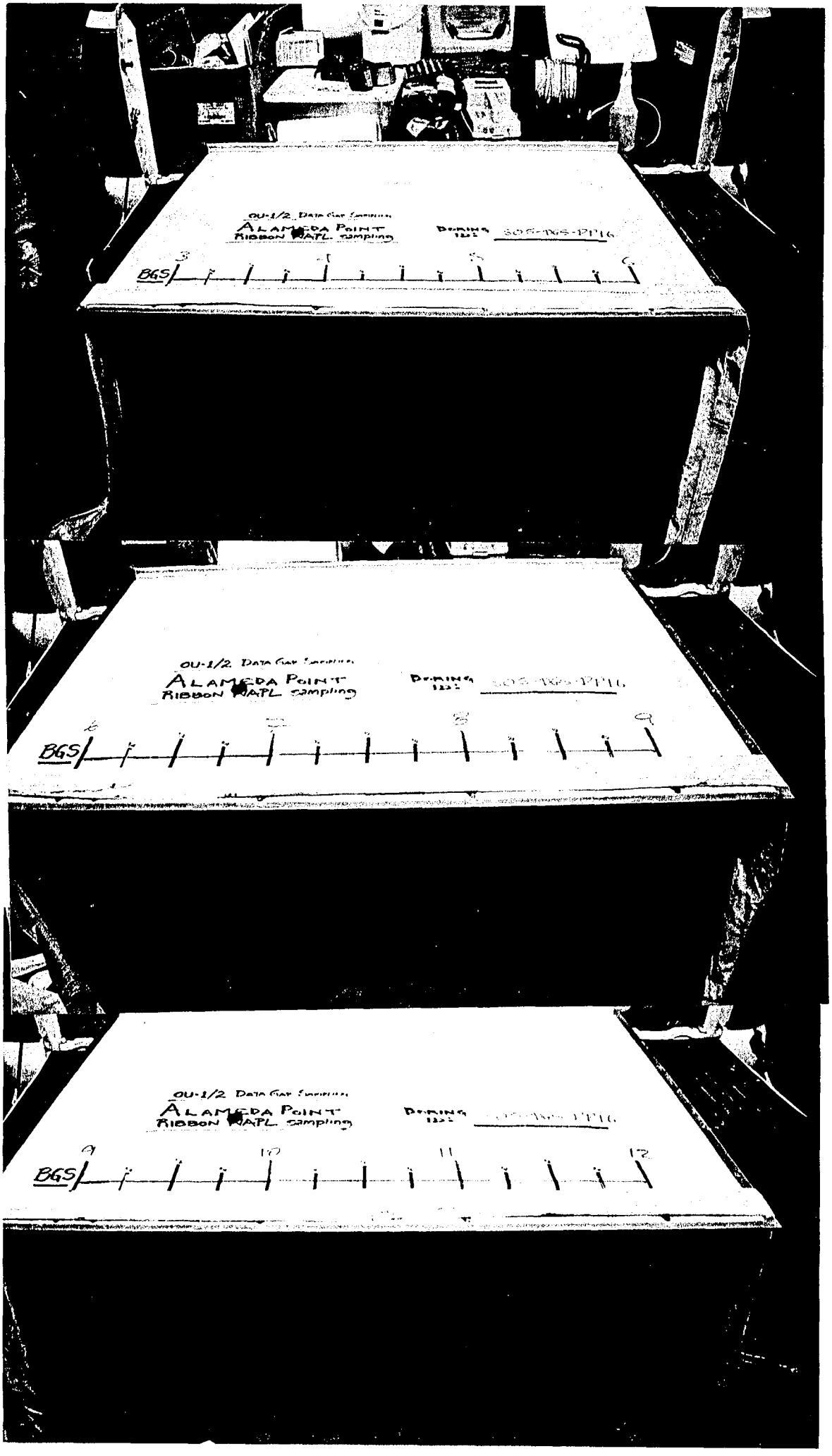

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
DORING ID:
BGS
6
9

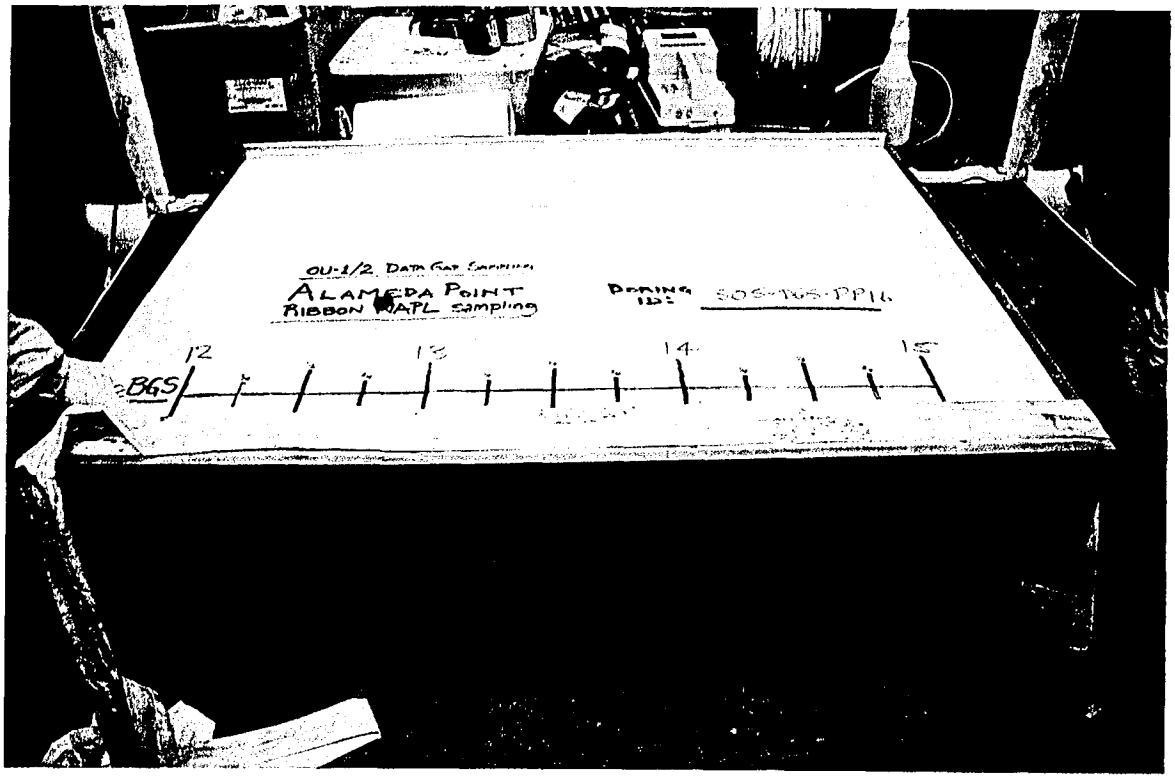

OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
DORING ID:
BGS
9
12


OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: SOS-DGS-DP15
12
13
14
15
BGS


OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID: SOS-DGS-DP15
15
16
17
BGS


OU-1/2 DATA GAP SAMPLING
ALAMEDA POINT
RIBBON NAPL sampling
BORING ID:
BGS
2
3


OU-1/2 Data Gap Sampling
ALAMEDA POINT
RIBBON WATL sampling
BGS
OU-1/2 Data Gap Sampling
ALAMEDA POINT
RIBBON WATL sampling
BGS
OU-1/2 Data Gap Sampling
ALAMEDA POINT
RIBBON WATL sampling
BGS


OU-1/2 Data Gap Sampling
ALAMEDA POINT
RIBBON NAPL sampling
Boring ID: SOS-TGS-PP16
BGS
12
13
14
15

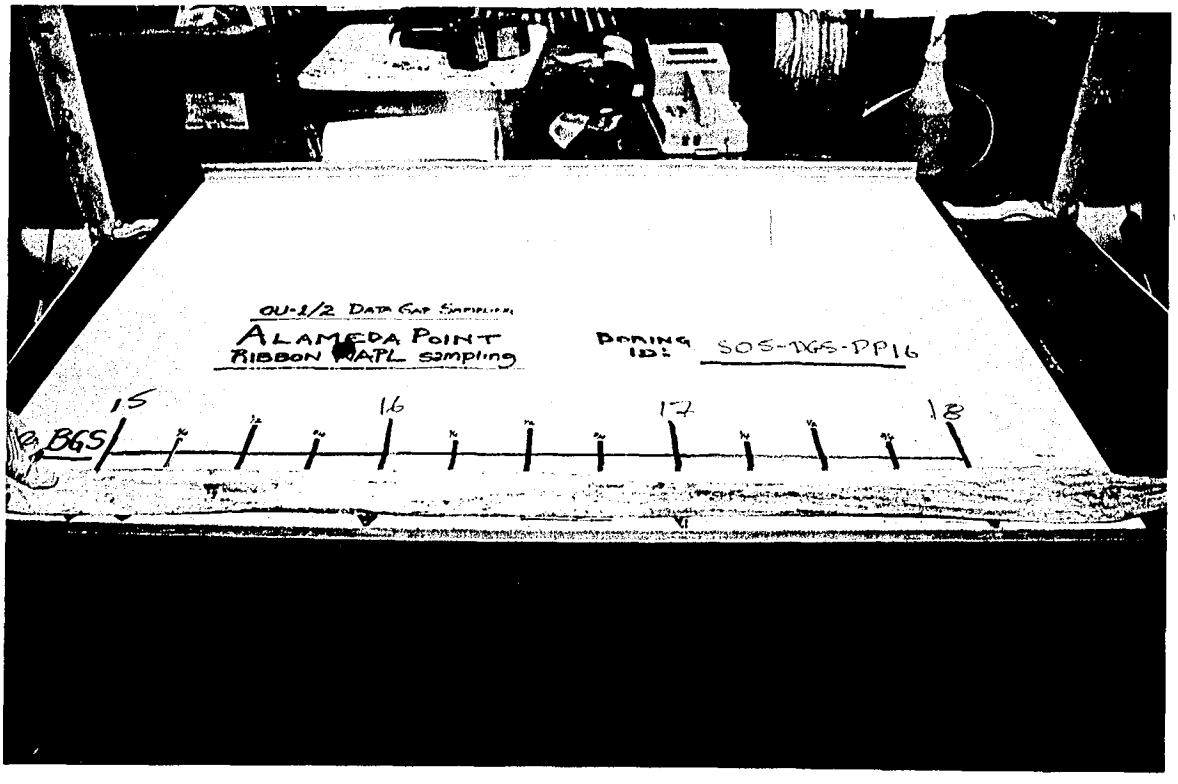

OU-1/2 Data Gap Sampling
ALAMEDA POINT
RIBBON NAPL sampling
Boring ID: SOS-TGS-PP16
BGS
15
16
17
18

TABLE J-1

RIBBON NAPL SAMPLING RESULTS SUMMARY
SUPPLEMENTAL REMEDIAL INVESTIGATION DATA GAP SAMPLING FOR OU-1 AND OU-2
ALAMEDA POINT, ALAMEDA, CALIFORNIA

Boring Identification	Site	Date Ribbon Set	Sample Depth Interval (feet bgs)	Staining Present?	Photo included in Appendix F? (Notes)	Initials of Person Evaluating Ribbon in Field
S04-DGS-DP01	4	7/20/2001	0 to 3	No	Yes	MC
S04-DGS-DP01	4	7/20/2001	3 to 6	No		
S04-DGS-DP01	4	7/20/2001	6 to 9	No		
S04-DGS-DP01	4	7/20/2001	9 to 12	No		
S04-DGS-DP01	4	7/20/2001	12 to 15	No		
S04-DGS-DP01	4	7/20/2001	15 to 17.5	No		
S04-DGS-DP02	4	8/6/2001	0 to 3	No	Yes	MC
S04-DGS-DP02	4	8/6/2001	3 to 6	No		
S04-DGS-DP02	4	8/6/2001	6 to 9	No		
S04-DGS-DP02	4	8/6/2001	9 to 12	No		
S04-DGS-DP02	4	8/6/2001	12 to 15	No		
S04-DGS-DP02	4	8/6/2001	15 to 18	No		
S04-DGS-DP02	4	8/6/2001	18 to 20.5	No		
S04-DGS-DP03	4	6/25/2001	0 to 3	No	Yes	MC
S04-DGS-DP03	4	6/25/2001	3 to 6	No		
S04-DGS-DP03	4	6/25/2001	6 to 9	No		
S04-DGS-DP03	4	6/25/2001	9 to 12	No		
S04-DGS-DP03	4	6/25/2001	12 to 15	No		
S04-DGS-DP04	4	8/6/2001	0 to 3	No	Yes	KM
S04-DGS-DP04	4	8/6/2001	3 to 6	No		
S04-DGS-DP04	4	8/6/2001	6 to 9	No		
S04-DGS-DP04	4	8/6/2001	9 to 12	No		
S04-DGS-DP04	4	8/6/2001	12 to 15	No		
S04-DGS-DP04	4	8/6/2001	15 to 18	No		
S04-DGS-DP04	4	8/6/2001	18 to 19.5	No		

TABLE J-1

RIBBON NAPL SAMPLING RESULTS SUMMARY
SUPPLEMENTAL REMEDIAL INVESTIGATION DATA GAP SAMPLING FOR OU-1 AND OU-2
ALAMEDA POINT, ALAMEDA, CALIFORNIA

Boring Identification	Site	Date Ribbon Set	Sample Depth Interval (feet bgs)	Staining Present?	Photo included in Appendix F? (Notes)	Initials of Person Evaluating Ribbon in Field
S04-DGS-DP05	4	8/2/2001	0 to 3	No	Yes	MC
S04-DGS-DP05	4	8/2/2001	3 to 6	No		
S04-DGS-DP05	4	8/2/2001	6 to 9	No		
S04-DGS-DP05	4	8/2/2001	9 to 12	No		
S04-DGS-DP05	4	8/2/2001	12 to 15	No		
S04-DGS-DP05	4	8/2/2001	15 to 18	No		
S04-DGS-DP05	4	8/2/2001	18 to 21	No		
S04-DGS-DP05	4	8/2/2001	21 to 24	No		
S04-DGS-DP05	4	8/2/2001	24 to 27	No		
S04-DGS-DP05	4	8/2/2001	27 to 30	No		
S04-DGS-DP06	4	8/8/2001	0 to 3	No	Yes	KM
S04-DGS-DP06	4	8/8/2001	3 to 6	No		
S04-DGS-DP06	4	8/8/2001	6 to 9	No		
S04-DGS-DP06	4	8/8/2001	9 to 12	No		
S04-DGS-DP06	4	8/8/2001	12 to 15	No		
S04-DGS-DP06	4	8/8/2001	15 to 18	No		
S04-DGS-DP06	4	8/8/2001	18 to 21	No		
S04-DGS-DP06	4	8/8/2001	21 to 22	No		
S04-DGS-DP07	4	8/3/2001	0 to 3	No	Yes	MC
S04-DGS-DP07	4	8/3/2001	3 to 6	No		
S04-DGS-DP07	4	8/3/2001	6 to 9	No		
S04-DGS-DP07	4	8/3/2001	9 to 12	No		
S04-DGS-DP07	4	8/3/2001	12 to 15	No		
S04-DGS-DP07	4	8/3/2001	15 to 18	No		
S04-DGS-DP07	4	8/3/2001	18 to 21	No		
S04-DGS-DP07	4	8/3/2001	21 to 24	No		
S04-DGS-DP07	4	8/3/2001	24 to 27	No		
S04-DGS-DP07	4	8/3/2001	27 to 30	No		

TABLE J-1

RIBBON NAPL SAMPLING RESULTS SUMMARY
SUPPLEMENTAL REMEDIAL INVESTIGATION DATA GAP SAMPLING FOR OU-1 AND OU-2
ALAMEDA POINT, ALAMEDA, CALIFORNIA

Boring Identification	Site	Date Ribbon Set	Sample Depth Interval (feet bgs)	Staining Present?	Photo included in Appendix F? (Notes)	Initials of Person Evaluating Ribbon in Field
S04-DGS-DP08	4	8/3/2001	0 to 3	No	Yes	MC
S04-DGS-DP08	4	8/3/2001	3 to 6	No		
S04-DGS-DP08	4	8/3/2001	6 to 9	No		
S04-DGS-DP08	4	8/3/2001	9 to 12	No		
S04-DGS-DP08	4	8/3/2001	12 to 15	No		
S04-DGS-DP08	4	8/3/2001	15 to 18	No		
S04-DGS-DP08	4	8/3/2001	18 to 21	No		
S04-DGS-DP08	4	8/3/2001	21 to 24	No		
S04-DGS-DP08	4	8/3/2001	24 to 27	No		
S04-DGS-DP08	4	8/3/2001	27 to 28.5	No		
S05-DGS-DP01	5	7/2/2001	0 to 3	No	Yes	MC
S05-DGS-DP01	5	7/2/2001	3 to 6	No		
S05-DGS-DP01	5	7/2/2001	6 to 9	No		
S05-DGS-DP01	5	7/2/2001	9 to 12	No		
S05-DGS-DP01	5	7/2/2001	12 to 15	No		
S05-DGS-DP01	5	7/2/2001	15 to 18	No		
S05-DGS-DP05	5	6/28/2001	0 to 3	No	Yes	MC
S05-DGS-DP05	5	6/28/2001	3 to 6	No		
S05-DGS-DP05	5	6/28/2001	6 to 9	No		
S05-DGS-DP05	5	6/28/2001	9 to 12	No		
S05-DGS-DP05	5	6/28/2001	12 to 15	No		
S05-DGS-DP05	5	6/28/2001	15 to 16.5	No		
S05-DGS-DP06	5	6/28/2001	0 to 3	No	Yes	MC
S05-DGS-DP06	5	6/28/2001	3 to 6	No		
S05-DGS-DP06	5	6/28/2001	6 to 9	No		
S05-DGS-DP06	5	6/28/2001	9 to 12	No		
S05-DGS-DP06	5	6/28/2001	12 to 15	No		
S05-DGS-DP06	5	6/28/2001	15 to 16.5	No		

TABLE J-1

RIBBON NAPL SAMPLING RESULTS SUMMARY
SUPPLEMENTAL REMEDIAL INVESTIGATION DATA GAP SAMPLING FOR OU-1 AND OU-2
ALAMEDA POINT, ALAMEDA, CALIFORNIA

Boring Identification	Site	Date Ribbon Set	Sample Depth Interval (feet bgs)	Staining Present?	Photo included in Appendix F? (Notes)	Initials of Person Evaluating Ribbon in Field
S05-DGS-DP07	5	6/28/2001	0 to 3	No	Yes	MC
S05-DGS-DP07	5	6/28/2001	3 to 6	No		
S05-DGS-DP07	5	6/28/2001	6 to 9	No		
S05-DGS-DP07	5	6/28/2001	9 to 12	No		
S05-DGS-DP07	5	6/28/2001	12 to 15	No		
S05-DGS-DP07	5	6/28/2001	15 to 17	No		
S05-DGS-DP08	5	6/28/2001	0 to 3	No	No (Ribbon recovered in fragments; not photographed; 2nd attempt, ribbon could not be recovered.)	MC
S05-DGS-DP08	5	6/28/2001	3 to 6	No		
S05-DGS-DP08	5	6/28/2001	6 to 9	No		
S05-DGS-DP08	5	6/28/2001	9 to 12	No		
S05-DGS-DP08	5	6/28/2001	12 to 15	No		
S05-DGS-DP08	5	6/28/2001	15 to 17	No		
S05-DGS-DP09	5	6/26/2001	0 to 3	No	Yes	MC
S05-DGS-DP09	5	6/26/2001	3 to 6	No		
S05-DGS-DP09	5	6/26/2001	6 to 9	No		
S05-DGS-DP09	5	6/26/2001	9 to 12	No		
S05-DGS-DP09	5	6/26/2001	12 to 15	No		
S05-DGS-DP09	5	6/26/2001	15 to 16.5	No		
S05-DGS-DP10	5	6/27/2001	0 to 3	No	Yes	MC
S05-DGS-DP10	5	6/27/2001	3 to 6	No		
S05-DGS-DP10	5	6/27/2001	6 to 9	No		
S05-DGS-DP10	5	6/27/2001	9 to 12	No		
S05-DGS-DP10	5	6/27/2001	12 to 15	No		
S05-DGS-DP10	5	6/27/2001	15 to 16	No		

TABLE J-1

RIBBON NAPL SAMPLING RESULTS SUMMARY
SUPPLEMENTAL REMEDIAL INVESTIGATION DATA GAP SAMPLING FOR OU-1 AND OU-2
ALAMEDA POINT, ALAMEDA, CALIFORNIA

Boring Identification	Site	Date Ribbon Set	Sample Depth Interval (feet bgs)	Staining Present?	Photo included in Appendix F? (Notes)	Initials of Person Evaluating Ribbon in Field
S05-DGS-DP10B	5	6/27/2001	0 to 3	No	Yes	MC
S05-DGS-DP10B	5	6/27/2001	3 to 6	No		
S05-DGS-DP10B	5	6/27/2001	6 to 9	No		
S05-DGS-DP10B	5	6/27/2001	9 to 12	No		
S05-DGS-DP10B	5	6/27/2001	12 to 15	No		
S05-DGS-DP10B	5	6/27/2001	15 to 17	No		
S05-DGS-DP11	5	6/26/2001	0 to 3	No	Yes	KM
S05-DGS-DP11	5	6/26/2001	3 to 6	No		
S05-DGS-DP11	5	6/26/2001	6 to 9	No		
S05-DGS-DP11	5	6/26/2001	9 to 12	No		
S05-DGS-DP11	5	6/26/2001	12 to 15	No		
S05-DGS-DP11	5	6/26/2001	15 to 17	No		
S05-DGS-DP12	5	6/20/2001	0 to 3	No	Yes	KM
S05-DGS-DP12	5	6/20/2001	3 to 6	No		
S05-DGS-DP12	5	6/20/2001	6 to 9	No		
S05-DGS-DP12	5	6/20/2001	9 to 12	No		
S05-DGS-DP12	5	6/20/2001	12 to 15	No		
S05-DGS-DP12	5	6/20/2001	15 to 17	No		
S05-DGS-DP13	5	6/25/2001	0 to 3	No	Yes	MC
S05-DGS-DP13	5	6/25/2001	3 to 6	No		
S05-DGS-DP13	5	6/25/2001	6 to 9	No		
S05-DGS-DP13	5	6/25/2001	9 to 12	No		
S05-DGS-DP13	5	6/25/2001	12 to 15	No		
S05-DGS-DP14	5	6/25/2001	0 to 3	No	Yes	MC
S05-DGS-DP14	5	6/25/2001	3 to 6	No		
S05-DGS-DP14	5	6/25/2001	6 to 9	No		
S05-DGS-DP14	5	6/25/2001	9 to 12	No		
S05-DGS-DP14	5	6/25/2001	12 to 15	No		

TABLE J-1

RIBBON NAPL SAMPLING RESULTS SUMMARY
SUPPLEMENTAL REMEDIAL INVESTIGATION DATA GAP SAMPLING FOR OU-1 AND OU-2
ALAMEDA POINT, ALAMEDA, CALIFORNIA

Boring Identification	Site	Date Ribbon Set	Sample Depth Interval (feet bgs)	Staining Present?	Photo included in Appendix F? (Notes)	Initials of Person Evaluating Ribbon in Field
S05-DGS-DP15	5	6/26/2001	0 to 3	No	Yes	KM
S05-DGS-DP15	5	6/26/2001	3 to 6	No		
S05-DGS-DP15	5	6/26/2001	6 to 9	No		
S05-DGS-DP15	5	6/26/2001	9 to 12	No		
S05-DGS-DP15	5	6/26/2001	12 to 15	No		
S05-DGS-DP15	5	6/26/2001	15 to 17	No		
S05-DGS-DP16	5	6/25/2001	0 to 3	No	Yes	MC
S05-DGS-DP16	5	6/25/2001	3 to 6	No		
S05-DGS-DP16	5	6/25/2001	6 to 9	No		
S05-DGS-DP16	5	6/25/2001	9 to 12	No		
S05-DGS-DP16	5	6/25/2001	12 to 15	No		
S05-DGS-DP16	5	6/25/2001	15 to 17	No		

Notes:

bgs = below ground surface

Uribe & Associates
447 29th Street
Suite Two Hundred
Oakland, California 94609-3532
☎ 510-832-2233 Fax 510-832-2237

Engineering and Environmental Services

February 20, 2002

Neal Hutchison
Environmental Chemist
Tetra Tech EM Inc.
10670 White Rock Road, Suite 100
Rancho Cordova, CA 95670

Subject: Sub Floor Inspection of the Cleaning and Plating Shops at Building 360, Alameda Point Naval Shipyard

Dear Neal:

On December 5th, 2001 Gary Thomas, Kirk Martin, and Mark Cruickshank of Uribe & Associates conducted an inspection of the sub floor of the cleaning and plating shops located in Building 360 at Alameda Point Naval Shipyard. The two areas were inspected for staining in order to identify potential release points from leaking process tanks. Figure 1 illustrates the location of the process tanks, and the route taken beneath the elevated floor to complete the inspection.

The sumps below the floor of the plating shop are enclosed by a cement block wall thus the sides of the sumps could only be examined in three areas. The first accessible area (Area A) was located on the south side of the plating shop. A narrow crawl space opened into a metal walled, soil floored area approximately four feet wide (north/south) and 20 feet long (east/west). No visible signs of contamination were noted in this space. The next accessible area was found on the north side of the plating shop. An opening between two of the tanks (Area B) was approximately 3 feet wide and ran the entire length of the tanks (north/south). The floor of the space was unfinished, uneven poured concrete. Crawling on the uneven concrete could not be done in a safe manner, so the area was not entered for inspection but no staining was visible from the opening. The third accessible area (Area C) located between the two eastern most tanks was approximately 8 feet wide (east/west) and ran the entire length of the tanks (north/south). Concrete blocks formed the walls of each tank, and continued from the elevated floor to beneath the sub-floor soil surface. A white precipitate and staining was found along the block rows in this area (Figure 2). The precipitate also accumulated at the sub floor/wall contact.

The cleaning shop sub floor was covered with black plastic, making staining very difficult to detect. The route crawled was along the footing which was the base of supports for the cleaning tanks located on the elevated floor. No stained was noted along this footing. A maze of metal pipes are located beneath the floor. Some of the pipes were corroded in half. Floor drain lines were inspected, and were found intact with no staining noted. A small metal tank (10 gallons) was found resting on the sub floor with intake and discharge lines connected to it. No holes were found in the tank, however the soil surrounding it was stained white and yellow.

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We greatly appreciate the opportunity to continue to work on this project. Please call me at (510) 587-4209 if you have any questions or need additional assistance.

Sincerely,

William F. White

William F. White, R.G., R.E.A.
Senior Hydrogeologist

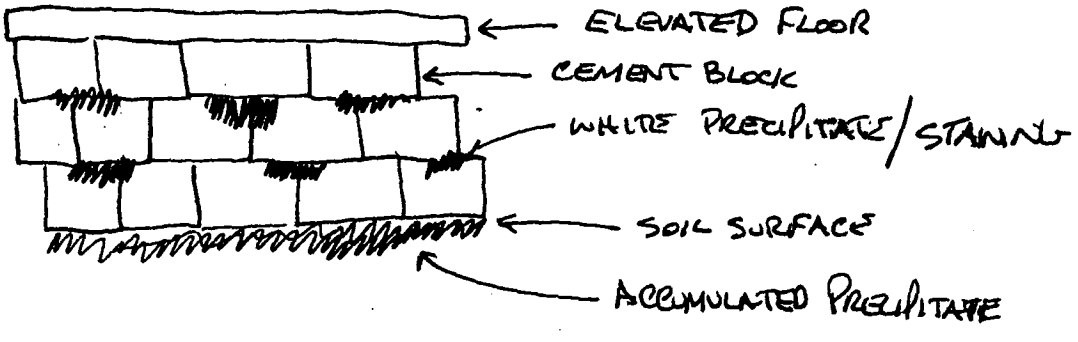
enclosures

FIGURE 1

Scale (feet)
0 10 20 30 40 50 60

S04-DGS-SG02
S04-DGS-SG01
S04-DGS-SG03
CLEANING SHOP
7 above ground cleaning tanks
S04-DGS-DP16
3 above ground cleaning tanks
Floor Drains
5 above ground cleaning tanks
Scrubbers
Metal Tank - 10 gal.
4 above ground cleaning tanks
Floor Drains
Floor Access
S04-DGS-DP15
S04-DGS-DP14
8 above ground cleaning tanks
S04-DGS-SG07
Scale (feet)
0 10 20 30 40 50 60
M04-05
PLATING SHOP
S04-DGS-DP18
Area B
Area C
S04-DGS-DP19
S04-DGS-DP11
S04-DGS-SG04
S04-DGS-SG06
S04-DGS-SG05
S04-DGS-DP08
S04-DGS-DP20
Floor Access
S04-DGS-DP17
S04-DGS-DP12
S04-DGS-DP06
S04-DGS-DP13
Area A

FIGURE 2 - SECTION VIEW OF PLATING SHOP TANK



APPENDIX K
CONE PENETROMETER DATA AND GROUNDWATER PARAMETER SUMMARY TABLES
(43 Pages)

PRECISION

August 16, 2001

CPT report / Alameda Point

Uribe & Associates
Attn: Bill White
2930 Lakeshore Avenue Suite 200
Oakland, CA 94610

Dear Bill White:

Enclosed please find the CPT report for the work at Alameda Point. The data is also included in electronic format. These files are in text format and can be opened in most programs with little formatting. Please contact me if you need anything else.

Sincerely,

Chris Tatum
CPT Division
Precision Sampling

1400 South 50th Street • Richmond, CA 94804 • (510) 237-4575 • FAX: (510) 237-4574
http://www.precisionsampling.com
Nationwide Direct-Push Services
1-800-671-4744

PRECISION

Cone Penetration Test Data

Site:
Alameda Point

Prepared for:
Uribe & Associates

Prepared by:
Precision Sampling
Richmond, CA

Data Collected on:
August 29-31, 2001

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PRECISION

1.0 Introduction

1.1 Field Equipment and Procedures

1.2 Interpretation

2.0 Electronic Piezocone (CPTU) Specifications

Appendix

- File Summary
- CPT Test Data
- Soil Classification Graph
- References

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PRECISION

1.0 Introduction

This report presents the Cone Penetration Testing (CPT) data collected on Alameda Point in Alameda, CA on August 29-31, 2001.

1.1 Field Equipment and Procedures

The Cone Penetration Tests were completed by Precision Sampling using an electronic cone penetrometer. Four soundings were pushed with Precision's 25-ton CPT truck to depths of approximately 50 feet. All soundings were conducted in accordance with ASTM standards (D3441).

The penetration data was collected using the following parameters:

- Tip Resistance (Qc)
- Sleeve Friction (Fs)
- Pore Pressure (Ut)

These and other parameters were collected, calculated and printed in real time in the field. All data was also stored on a diskette.

Baseline readings were collected before and after soundings in order to monitor cone electronics. Baseline monitoring assures proper cone operation.

1.2 Interpretation

CPT measurements during cone penetration include cone bearing (q_c), sleeve friction (f_s), and dynamic pore water pressure (u). Because these measurements relate to specific soil properties they can be used to identify soil types.

Soil type interpretation of the collected parameters is represented in the color tabulation in the following appendix. This interpretation is based on correlations developed by Robertson et al, 1989. In this interpretation, friction ratio (R_f) (sleeve friction divided by cone bearing) and cone bearing are used in the attached chart to identify soil types.

A general observation of the measured parameters can also be used to identify soil types. The following table can be used as a guideline for basic soil type evaluations.

	Sand	Clay
Cone Bearing (q_c)	High	Low
Friction Ratio (f_s/q_s)	Low	High
Pore water pressure (u)	Low	High

PRECISION

2.0 Electronic Piezocone (CPTU) Specifications

Cone

- 10 ton subtraction cone
- Strain gauge load cell measurement
- Outside diameter: 1.6"
- Temperature compensated
- Baseline monitoring

Tip Resistance

- Tip area: 10 cm^2
- Full scale output (FSO): 1000 T/ft^2 (q_c)
- Apical angle: 60°
- Frequency of measurement: 5 cm
- Measured data: Force / base area = q_c

Friction

- Surface area: 150 cm^2
- Location: behind pore pressure element
- End area ratio: 0.85
- Equal end areas to eliminate pore pressure effects
- Frequency of measurement: 5 cm
- Measured data: Force / surface area = f_s

Pore Pressure

- Location: Behind tip (U_2 position)
- Thickness: 5mm
- Composition: Polypropylene porous plastic
- Saturation liquid: Glycerin $CHOH(CH_2OH)_2$
- Saturation method: High vacuum with heat and vibration
- Measured data: U – Measured pore pressure (while advancing)
  U_o – Equilibrium pore pressure (while stopped)
- Frequency of measurement: 5 cm
- Pressure changes are measured with a diaphragm type electronic pressure transducer

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APPENDIX

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PRECISION

CPT FILE SUMMARY

DATE	SOUNDING	FILE NAME	TOTAL DEPTH (FT)
8/29/01	S11-dgs-dp101	S11-dgs-dp101	50
8/30/01	S11-dgs-dp103	S11-dgs-dp103	50
8/30/01	S11-dgs-dp109	S11-dgs-dp109	50
8/31/01	S11-dgs-dp104	S11-dgs-dp104	50

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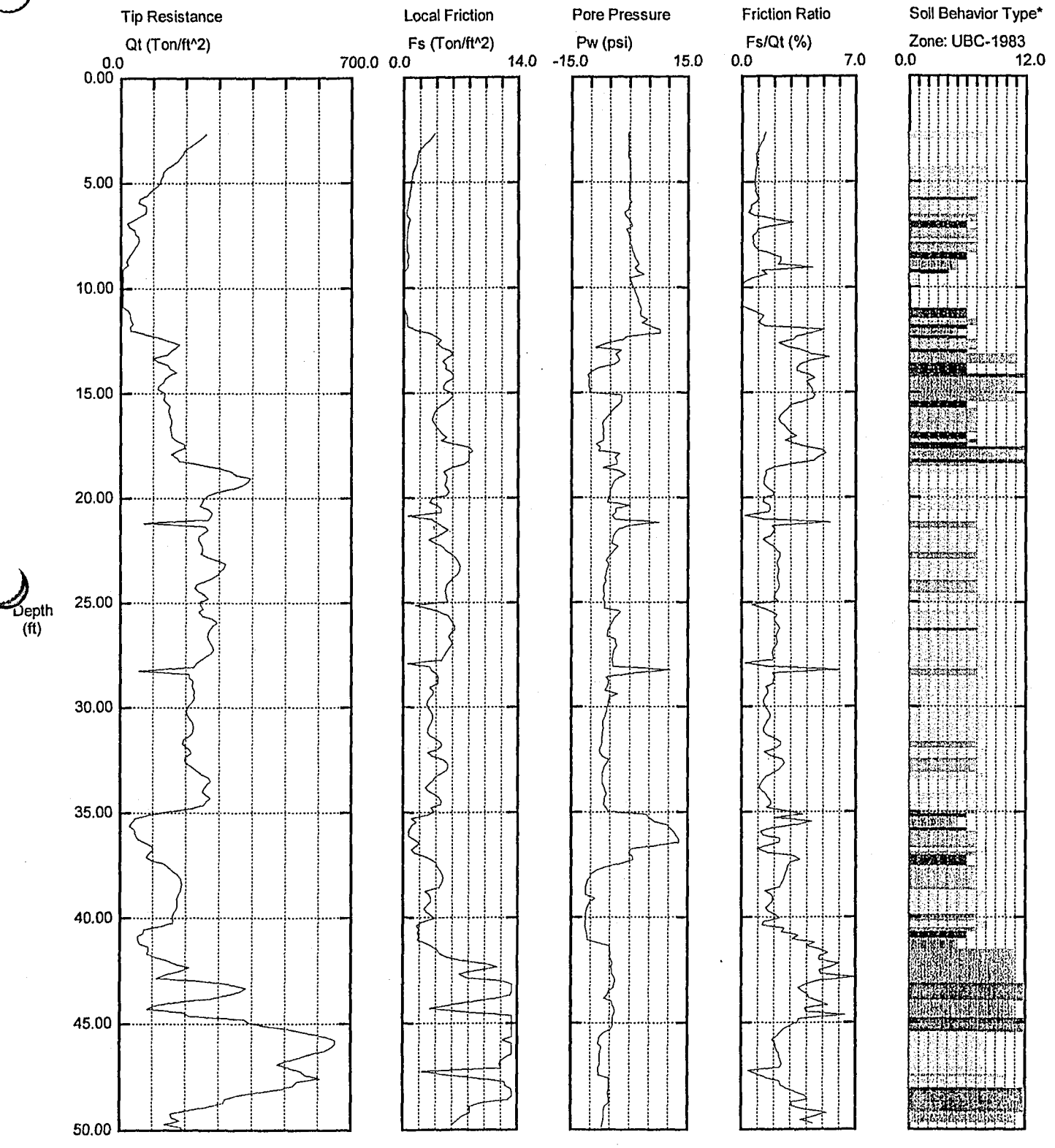
Soil behavior type and SPT based on data from UBC-1983

Precision Sampling Inc.

Operator: Chris
Sounding: Urib04
Cone Used: 465

CPT Date/Time: 08-29-01 13:11
Location: Alameda Point
Job Number: s11-dgs-dp101



Maximum Depth = 50.07 feet

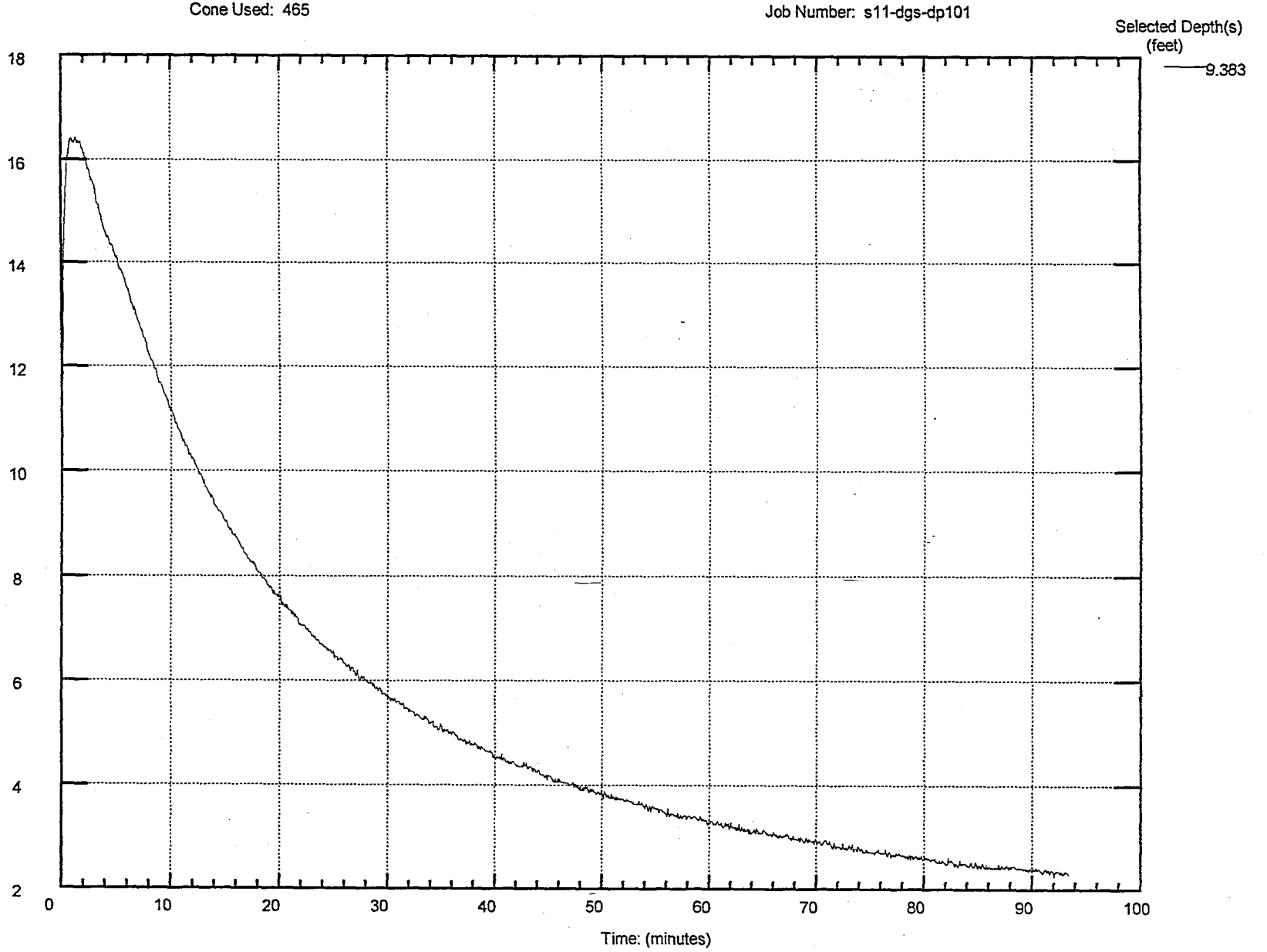
Depth Increment = 0.16 feet

1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

Precision Sampling Inc.

Operator Chris
Sounding: Urib04
Cone Used: 465

CPT Date/Time: 08-29-01 13:11
Location: Alameda Point
Job Number: s11-dgs-dp101

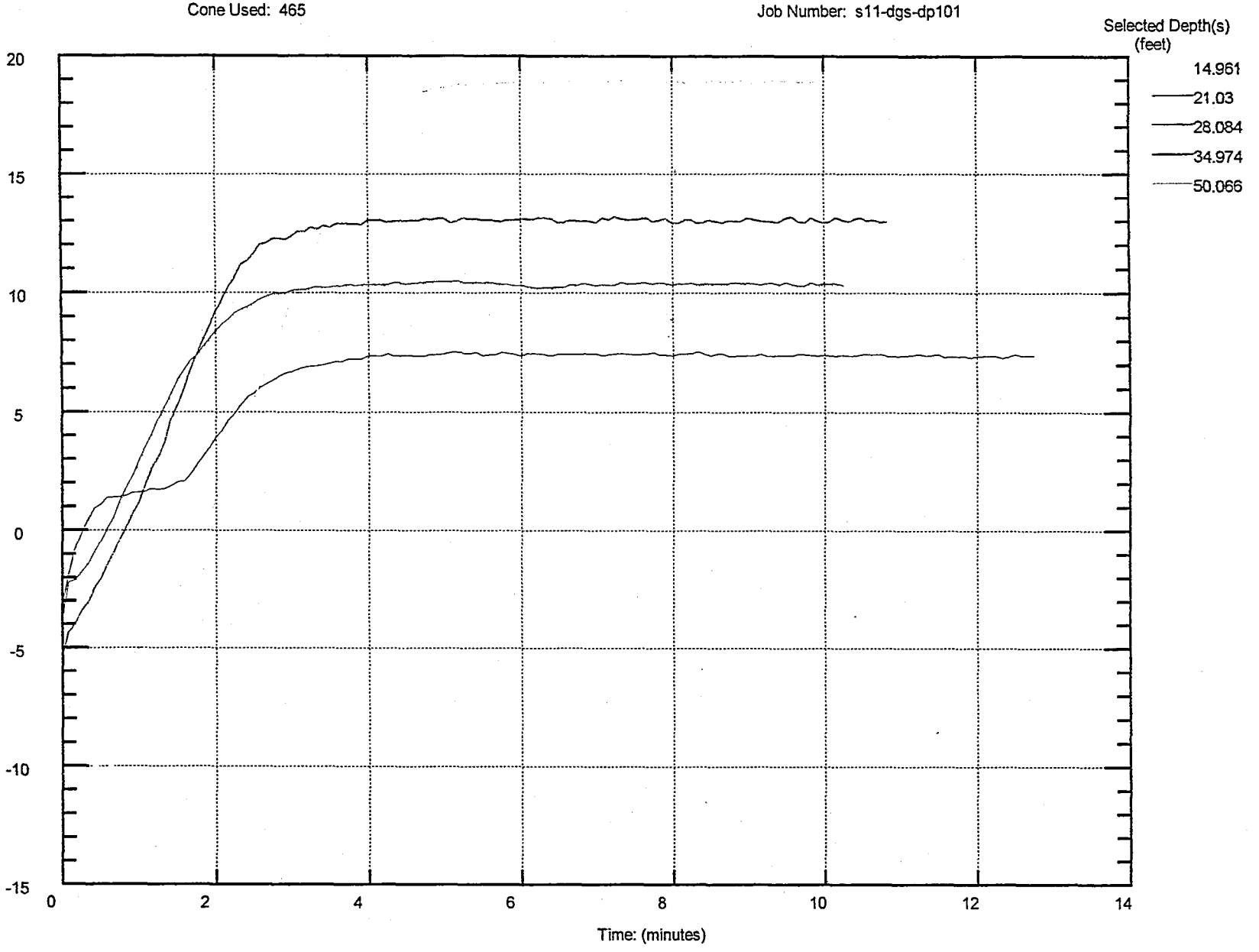


Maximum Pressure = 16.419 psi
Hydrostatic Pressure = 4.072 psi

Precision Sampling Inc.

Operator Chris
Sounding: Urib04
Cone Used: 465

CPT Date/Time: 08-29-01 13:11
Location: Alameda Point
Job Number: s11-dgs-dp101



Maximum Pressure = 18.941 psi
Hydrostatic Pressure = 21.729 psi

Data File:Urib04
Operator:Chris
Cone ID:465
Customer:Hogentogler & Co

08-29-01 13:11
Location:Alameda Point
Job Number:s11-dgs-dp101
Units:English

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
2.66	259.4	3.710	-0.50	1.430	8	sand to silty sand
2.82	248.1	3.350	-0.50	1.350	8	sand to silty sand
2.99	234.5	3.050	-0.50	1.301	9	sand
3.15	219.6	2.540	-0.50	1.157	9	sand
3.31	203.9	2.120	-0.50	1.040	9	sand
3.48	193.1	1.800	-0.50	0.932	9	sand
3.64	188.4	1.640	-0.50	0.871	9	sand
3.81	180.6	1.610	-0.50	0.892	9	sand
3.97	171.3	1.530	-0.20	0.893	9	sand
4.13	157.8	1.430	-0.20	0.906	9	sand
4.30	139.9	1.240	-0.20	0.886	8	sand to silty sand
4.46	129.2	1.050	-0.20	0.813	8	sand to silty sand
4.63	127.0	1.000	-0.20	0.787	8	sand to silty sand
4.79	122.5	0.950	-0.20	0.776	8	sand to silty sand
4.95	120.8	0.890	-0.20	0.737	8	sand to silty sand
5.12	110.8	0.860	-0.30	0.776	8	sand to silty sand
5.28	98.7	0.810	-0.30	0.821	8	sand to silty sand
5.45	87.1	0.690	-0.40	0.792	8	sand to silty sand
5.61	76.1	0.670	-0.30	0.880	8	sand to silty sand
5.77	57.8	0.590	-0.40	1.021	7	silty sand to sandy silt
5.94	52.9	0.460	0.20	0.870	8	sand to silty sand
6.10	76.9	0.420	-0.40	0.546	8	sand to silty sand
6.27	77.8	0.420	-0.50	0.540	8	sand to silty sand
6.43	76.5	0.280	-1.50	0.366	8	sand to silty sand
6.59	59.2	0.420	-1.30	0.710	7	silty sand to sandy silt
6.76	39.0	0.750	-0.30	1.923	7	silty sand to sandy silt
6.92	18.2	0.570	0.10	3.132	6	sandy silt to clayey silt
7.09	25.4	0.450	0.50	1.771	6	sandy silt to clayey silt
7.25	42.3	0.400	-1.20	0.946	7	silty sand to sandy silt
7.41	43.1	0.360	-0.50	0.835	7	silty sand to sandy silt
7.58	55.1	0.330	-0.40	0.599	7	silty sand to sandy silt
7.74	55.5	0.360	-0.20	0.649	8	sand to silty sand
7.91	50.8	0.340	-0.10	0.669	7	silty sand to sandy silt
8.07	42.3	0.330	0.40	0.780	7	silty sand to sandy silt
8.23	35.2	0.350	0.50	0.994	7	silty sand to sandy silt
8.40	29.3	0.500	0.80	1.706	6	sandy silt to clayey silt
8.56	21.2	0.500	1.10	2.357	6	sandy silt to clayey silt
8.73	15.8	0.370	1.60	2.338	5	clayey silt to silty clay
8.89	21.9	0.480	2.10	2.189	5	clayey silt to silty clay
9.06	7.6	0.330	1.10	4.333	5	clayey silt to silty clay
9.22	5.1	0.060	1.70	1.171	4	silty clay to clay
9.38	6.0	0.090	3.50	1.513	1	sensitive fine grained
9.55	7.6	0.050	-0.20	0.658	1	sensitive fine grained
9.71	5.7	0.010	0.10	0.175	1	sensitive fine grained
9.88	5.1	-0.040	0.40	-0.783	0	<out of range>
10.04	5.4	-0.030	0.80	-0.554	0	<out of range>
10.20	5.3	-0.030	1.10	-0.564	0	<out of range>
10.37	5.2	-0.030	1.40	-0.575	0	<out of range>
10.53	5.4	-0.030	1.80	-0.553	0	<out of range>
10.70	5.4	-0.050	2.10	-0.921	0	<out of range>
10.86	5.5	-0.030	2.40	-0.542	0	<out of range>
11.02	19.9	0.080	2.80	0.401	6	sandy silt to clayey silt
11.19	27.2	0.250	2.40	0.918	6	sandy silt to clayey silt
11.35	26.5	0.350	2.70	1.319	6	sandy silt to clayey silt

behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
11.52	30.5	0.340	4.40	1.116	7	silty sand to sandy silt
11.68	35.3	0.350	2.90	0.990	7	silty sand to sandy silt
11.84	29.0	0.390	5.00	1.346	6	sandy silt to clayey silt
01	30.1	1.500	7.60	4.982	5	clayey silt to silty clay
.17	72.2	3.080	7.70	4.265	5	clayey silt to silty clay
12.34	117.9	3.910	-1.00	3.317	6	sandy silt to clayey silt
12.50	144.9	4.540	-2.30	3.134	7	silty sand to sandy silt
12.66	178.9	3.990	-6.40	2.230	7	silty sand to sandy silt
12.83	165.8	4.600	-9.00	2.775	7	silty sand to sandy silt
12.99	152.8	5.630	-2.40	3.685	6	sandy silt to clayey silt
13.16	139.4	5.880	-3.80	4.217	11	very stiff fine grained (*)
13.32	98.2	5.220	-3.20	5.318	11	very stiff fine grained (*)
13.48	114.5	4.700	-2.80	4.106	11	very stiff fine grained (*)
13.65	143.5	5.140	-4.10	3.581	6	sandy silt to clayey silt
13.81	150.1	5.020	-8.50	3.345	6	sandy silt to clayey silt
13.98	169.5	5.660	-9.90	3.340	6	sandy silt to clayey silt
14.14	145.3	6.000	-10.90	4.128	12	sand to clayey sand (*)
14.30	134.6	5.980	-10.60	4.441	11	very stiff fine grained (*)
14.47	129.6	5.080	-10.70	3.918	11	very stiff fine grained (*)
14.63	115.4	4.730	-10.80	4.097	11	very stiff fine grained (*)
14.80	113.4	4.810	-10.60	4.240	11	very stiff fine grained (*)
14.96	132.6	5.700	-10.40	4.300	11	very stiff fine grained (*)
15.12	134.9	6.010	-2.30	4.456	11	very stiff fine grained (*)
15.29	130.2	5.610	-2.40	4.310	11	very stiff fine grained (*)
15.45	140.8	5.100	-2.50	3.623	6	sandy silt to clayey silt
15.62	150.2	4.440	-3.40	2.957	6	sandy silt to clayey silt
15.78	144.5	3.980	-4.50	2.754	7	silty sand to sandy silt
15.94	146.4	3.690	-5.20	2.520	7	silty sand to sandy silt
16.11	151.3	3.490	-5.90	2.306	7	silty sand to sandy silt
16.27	156.1	3.450	-6.70	2.210	7	silty sand to sandy silt
16.44	155.8	3.680	-7.10	2.362	7	silty sand to sandy silt
16.60	150.4	3.960	-7.00	2.633	7	silty sand to sandy silt
.77	152.9	4.240	-6.90	2.773	7	silty sand to sandy silt
.93	154.3	4.640	-7.00	3.007	6	sandy silt to clayey silt
17.09	156.6	5.190	-6.90	3.314	6	sandy silt to clayey silt
17.26	172.8	4.540	-7.00	2.627	7	silty sand to sandy silt
17.42	193.3	6.010	-8.90	3.110	6	sandy silt to clayey silt
17.59	196.2	7.880	-7.80	4.017	12	sand to clayey sand (*)
17.75	170.6	8.420	-8.10	4.936	11	very stiff fine grained (*)
17.91	155.0	7.980	-2.70	5.150	11	very stiff fine grained (*)
18.08	172.5	8.020	-3.90	4.648	11	very stiff fine grained (*)
18.24	179.1	7.920	-3.50	4.421	12	sand to clayey sand (*)
18.41	241.9	7.250	-3.50	2.996	7	silty sand to sandy silt
18.57	299.4	5.760	-7.00	1.924	8	sand to silty sand
18.73	334.4	4.820	-2.90	1.442	8	sand to silty sand
18.90	350.2	5.150	-1.30	1.471	9	sand
19.06	393.7	5.260	-3.10	1.336	9	sand
19.23	383.9	5.170	-4.20	1.347	9	sand
19.39	370.4	4.990	-4.60	1.347	9	sand
19.55	339.7	5.350	-4.90	1.575	8	sand to silty sand
19.72	292.2	5.530	-5.20	1.892	8	sand to silty sand
19.88	262.9	5.110	-5.30	1.944	8	sand to silty sand
20.05	252.5	3.370	-5.70	1.335	8	sand to silty sand
20.21	247.7	3.120	-5.90	1.260	8	sand to silty sand
20.37	241.9	4.020	-0.20	1.662	8	sand to silty sand
20.54	267.2	4.570	-3.70	1.710	8	sand to silty sand
20.70	279.0	4.550	-3.70	1.631	9	sand
20.87	274.9	0.510	-4.70	0.186	9	sand
21.03	265.0	3.360	-3.80	1.268	9	sand

l behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
21.19	72.2	3.910	7.40	5.415	7	silty sand to sandy silt
21.36	258.0	4.720	-0.90	1.830	7	silty sand to sandy silt
21.52	265.4	5.370	-3.10	2.024	8	sand to silty sand
[illegible].69	250.8	4.760	-3.80	1.898	8	sand to silty sand
[illegible].85	238.4	4.070	-4.50	1.707	8	sand to silty sand
22.01	237.2	3.020	-4.50	1.273	8	sand to silty sand
22.18	245.1	3.830	-4.80	1.562	8	sand to silty sand
22.34	249.4	4.770	-3.10	1.913	8	sand to silty sand
22.51	249.4	5.180	-4.10	2.077	8	sand to silty sand
22.67	245.3	5.720	-4.80	2.332	7	silty sand to sandy silt
22.83	265.5	6.160	-5.50	2.320	7	silty sand to sandy silt
23.00	297.6	6.500	-6.30	2.184	8	sand to silty sand
23.16	318.4	6.710	-5.50	2.107	8	sand to silty sand
23.33	314.5	6.870	-5.80	2.184	8	sand to silty sand
23.49	303.1	6.830	-6.00	2.253	8	sand to silty sand
23.65	294.6	6.510	-6.20	2.210	8	sand to silty sand
23.82	279.6	6.010	-6.50	2.149	8	sand to silty sand
23.98	252.9	5.580	-6.20	2.206	7	silty sand to sandy silt
24.15	230.6	5.220	-6.80	2.264	7	silty sand to sandy silt
24.31	226.5	5.100	-6.90	2.252	7	silty sand to sandy silt
24.48	236.9	5.030	-6.90	2.123	7	silty sand to sandy silt
24.64	255.4	5.070	-6.70	1.985	8	sand to silty sand
24.80	267.2	5.210	-7.00	1.950	8	sand to silty sand
24.97	242.8	5.370	-6.70	2.212	8	sand to silty sand
25.13	243.7	1.460	-6.50	0.599	9	sand
25.30	251.7	2.950	-6.70	1.172	9	sand
25.46	237.3	4.160	-2.50	1.753	8	sand to silty sand
25.62	249.0	5.360	-3.40	2.153	8	sand to silty sand
25.79	280.8	5.580	-4.20	1.987	8	sand to silty sand
25.95	292.9	5.910	-4.70	2.018	8	sand to silty sand
26.12	280.5	6.140	-5.20	2.189	8	sand to silty sand
26.28	272.1	6.230	-5.60	2.289	7	silty sand to sandy silt
[illegible].44	266.0	5.810	-5.80	2.184	8	sand to silty sand
[illegible].61	265.2	5.440	-5.90	2.051	8	sand to silty sand
26.77	267.8	5.680	-3.80	2.121	8	sand to silty sand
26.94	272.7	5.890	-3.80	2.160	8	sand to silty sand
27.10	279.7	5.680	-3.50	2.030	8	sand to silty sand
27.26	281.7	5.330	-4.20	1.892	8	sand to silty sand
27.43	273.8	5.040	-4.40	1.841	8	sand to silty sand
27.59	258.0	4.880	-4.60	1.891	8	sand to silty sand
27.76	242.7	4.600	-4.70	1.895	8	sand to silty sand
27.92	231.0	0.450	-4.40	0.195	9	sand
28.08	223.0	3.080	-4.50	1.381	8	sand to silty sand
28.25	56.5	3.380	10.40	5.977	7	silty sand to sandy silt
28.41	208.9	3.910	0.70	1.872	7	silty sand to sandy silt
28.58	209.0	4.190	-6.30	2.005	8	sand to silty sand
28.74	219.7	4.130	-5.60	1.880	8	sand to silty sand
28.90	218.8	4.120	-5.70	1.883	8	sand to silty sand
29.07	220.6	3.130	-6.10	1.419	8	sand to silty sand
29.23	225.3	3.590	-6.40	1.593	8	sand to silty sand
29.40	223.8	3.530	-3.20	1.578	8	sand to silty sand
29.56	225.2	3.160	-5.30	1.403	8	sand to silty sand
29.72	219.3	2.850	-5.50	1.299	8	sand to silty sand
29.89	208.5	2.820	-5.70	1.352	8	sand to silty sand
30.05	201.9	2.960	-6.10	1.466	8	sand to silty sand
30.22	200.5	3.250	-6.10	1.621	8	sand to silty sand
30.38	205.1	3.520	-6.40	1.716	8	sand to silty sand
30.54	211.3	3.560	-6.70	1.685	8	sand to silty sand
30.71	218.0	3.360	-7.00	1.541	8	sand to silty sand

[illegible]l behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
30.87	221.1	3.150	-7.00	1.425	8	sand to silty sand
31.04	222.2	2.920	-6.90	1.314	8	sand to silty sand
31.20	218.7	2.860	-7.10	1.308	8	sand to silty sand
[illegible].36	208.9	3.180	-7.20	1.522	8	sand to silty sand
[illegible].53	193.8	3.860	-7.40	1.992	8	sand to silty sand
31.69	188.4	4.500	-7.30	2.389	7	silty sand to sandy silt
31.86	198.2	4.670	-7.50	2.356	7	silty sand to sandy silt
32.02	210.9	4.180	-7.80	1.982	8	sand to silty sand
32.19	216.7	2.950	-7.70	1.361	8	sand to silty sand
32.35	199.4	3.540	-7.20	1.775	8	sand to silty sand
32.51	195.4	4.840	-5.40	2.477	7	silty sand to sandy silt
32.68	203.9	5.300	-6.10	2.599	7	silty sand to sandy silt
32.84	219.4	5.370	-6.60	2.448	7	silty sand to sandy silt
33.01	230.9	5.190	-6.90	2.248	7	silty sand to sandy silt
33.17	246.0	4.480	-7.30	1.821	8	sand to silty sand
33.33	267.8	3.890	-7.20	1.453	8	sand to silty sand
33.50	274.2	3.560	-7.20	1.298	9	sand
33.66	263.2	3.070	-7.10	1.166	9	sand
33.83	253.9	2.620	-6.70	1.032	9	sand
33.99	249.5	2.980	-6.40	1.194	9	sand
34.15	259.3	3.690	-6.10	1.423	8	sand to silty sand
34.32	273.2	4.310	-6.60	1.578	8	sand to silty sand
34.48	260.2	4.570	-6.70	1.756	8	sand to silty sand
34.65	252.8	4.450	-6.90	1.760	8	sand to silty sand
34.81	219.9	3.290	-6.20	1.496	8	sand to silty sand
34.97	136.8	3.740	-5.60	2.734	7	silty sand to sandy silt
35.14	78.2	2.940	4.20	3.761	6	sandy silt to clayey silt
35.30	45.1	0.920	5.00	2.041	5	clayey silt to silty clay
35.47	36.2	1.540	6.30	4.255	5	clayey silt to silty clay
35.63	27.0	0.910	9.50	3.366	5	clayey silt to silty clay
35.79	42.0	0.710	10.40	1.688	6	sandy silt to clayey silt
[illegible]5.96	43.9	0.490	11.20	1.117	7	silty sand to sandy silt
[illegible].12	49.4	0.650	11.70	1.317	7	silty sand to sandy silt
[illegible].29	55.5	1.300	12.60	2.343	7	silty sand to sandy silt
36.45	82.0	1.880	12.60	2.293	7	silty sand to sandy silt
36.61	97.9	1.520	6.40	1.553	7	silty sand to sandy silt
36.78	100.5	0.950	0.10	0.945	8	sand to silty sand
36.94	86.9	1.350	-0.40	1.554	7	silty sand to sandy silt
37.11	78.9	2.460	0.50	3.118	6	sandy silt to clayey silt
37.27	96.4	3.420	0.70	3.547	6	sandy silt to clayey silt
37.43	134.1	3.970	-2.00	2.961	6	sandy silt to clayey silt
37.60	148.0	4.120	-6.20	2.784	7	silty sand to sandy silt
37.76	160.0	4.450	-8.50	2.782	7	silty sand to sandy silt
37.93	173.3	4.680	-9.80	2.701	7	silty sand to sandy silt
38.09	183.3	4.790	-10.40	2.614	7	silty sand to sandy silt
38.25	186.5	4.740	-10.90	2.541	7	silty sand to sandy silt
38.42	187.0	4.520	-11.20	2.417	7	silty sand to sandy silt
38.58	185.0	4.280	-11.40	2.313	7	silty sand to sandy silt
38.75	181.2	2.560	-11.50	1.413	8	sand to silty sand
38.91	177.2	3.100	-11.50	1.749	8	sand to silty sand
39.07	173.8	3.320	-8.90	1.911	8	sand to silty sand
39.24	174.1	3.310	-10.20	1.902	8	sand to silty sand
39.40	173.9	2.920	-10.70	1.679	8	sand to silty sand
39.57	171.1	2.480	-11.10	1.449	8	sand to silty sand
39.73	164.7	2.720	-11.30	1.651	8	sand to silty sand
39.90	158.4	3.320	-11.40	2.095	7	silty sand to sandy silt
40.06	160.2	3.730	-11.50	2.328	7	silty sand to sandy silt
40.22	161.1	2.120	-11.60	1.316	8	sand to silty sand
40.39	127.5	1.580	-11.60	1.239	8	sand to silty sand

[illegible]l behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
40.55	72.9	1.910	-11.30	2.619	7	silty sand to sandy silt
40.72	70.5	1.720	-11.20	2.438	6	sandy silt to clayey silt
40.88	53.5	1.860	-11.00	3.474	6	sandy silt to clayey silt
[illegible].04	54.6	1.690	-11.00	3.093	5	clayey silt to silty clay
[illegible].21	59.3	2.650	-8.20	4.470	5	clayey silt to silty clay
[illegible].37	85.9	3.390	-5.30	3.945	5	clayey silt to silty clay
41.54	85.2	4.060	-5.30	4.764	11	very stiff fine grained (*)
41.70	83.3	4.390	-5.20	5.269	11	very stiff fine grained (*)
41.86	110.9	5.250	-5.10	4.733	11	very stiff fine grained (*)
42.03	144.4	6.870	-4.90	4.757	11	very stiff fine grained (*)
42.19	172.4	10.250	-4.50	5.944	11	very stiff fine grained (*)
42.36	212.1	11.510	-4.90	5.426	11	very stiff fine grained (*)
42.52	179.5	8.550	-4.70	4.762	11	very stiff fine grained (*)
42.68	140.5	6.810	-4.70	4.846	11	very stiff fine grained (*)
42.85	111.5	7.720	-4.10	6.921	11	very stiff fine grained (*)
43.01	259.8	12.180	-3.80	4.687	11	very stiff fine grained (*)
43.18	336.0	13.300	-4.20	3.958	12	sand to clayey sand (*)
43.34	383.6	13.300	-4.20	3.467	12	sand to clayey sand (*)
43.50	361.4	13.300	-5.40	3.680	12	sand to clayey sand (*)
43.67	323.7	13.040	-5.80	4.028	12	sand to clayey sand (*)
43.83	274.6	11.280	-6.70	4.108	12	sand to clayey sand (*)
44.00	179.3	8.420	-4.70	4.695	11	very stiff fine grained (*)
44.16	103.7	5.480	-4.60	5.283	11	very stiff fine grained (*)
44.32	83.1	3.210	-4.10	3.861	11	very stiff fine grained (*)
44.49	195.6	7.720	-4.00	3.946	11	very stiff fine grained (*)
44.65	210.1	13.300	-4.30	6.329	11	very stiff fine grained (*)
44.82	377.8	13.300	-4.50	3.520	12	sand to clayey sand (*)
44.98	390.5	13.300	-4.50	3.406	12	sand to clayey sand (*)
45.14	452.0	13.300	-4.40	2.942	12	sand to clayey sand (*)
45.31	524.4	13.300	-5.10	2.536	12	sand to clayey sand (*)
45.47	570.6	13.300	-6.90	2.331	8	sand to silty sand
45.64	621.3	13.300	-7.70	2.141	8	sand to silty sand
[illegible].80	649.4	12.090	-8.00	1.862	8	sand to silty sand
[illegible].96	652.6	13.300	-8.30	2.038	8	sand to silty sand
46.13	642.4	13.300	-7.30	2.070	8	sand to silty sand
46.29	619.6	13.300	-7.50	2.147	8	sand to silty sand
46.46	577.4	13.300	-7.70	2.303	8	sand to silty sand
46.62	544.7	12.550	-7.70	2.304	8	sand to silty sand
46.78	505.0	11.920	-7.70	2.360	8	sand to silty sand
46.95	476.1	11.750	-7.80	2.468	8	sand to silty sand
47.11	513.2	11.950	-8.10	2.329	8	sand to silty sand
47.28	548.9	2.220	-8.10	0.404	9	sand
47.44	561.4	5.530	-8.00	0.985	10	gravelly sand to sand
47.60	607.7	9.330	-5.40	1.535	9	sand
47.77	535.2	12.400	-5.40	2.317	8	sand to silty sand
47.93	523.3	12.470	-5.40	2.383	8	sand to silty sand
48.10	491.7	13.160	-5.40	2.676	12	sand to clayey sand (*)
48.26	409.3	13.300	-5.70	3.249	12	sand to clayey sand (*)
48.43	345.9	13.300	-5.50	3.845	12	sand to clayey sand (*)
48.59	316.7	12.750	-5.40	4.026	12	sand to clayey sand (*)
48.75	314.8	9.470	-5.40	3.008	12	sand to clayey sand (*)
48.92	262.4	8.050	-6.40	3.068	12	sand to clayey sand (*)
49.08	210.7	8.190	-6.70	3.887	12	sand to clayey sand (*)
49.25	154.5	8.080	-6.70	5.230	11	very stiff fine grained (*)
49.41	159.0	7.060	-6.70	4.440	11	very stiff fine grained (*)
49.57	182.7	6.610	-6.80	3.618	11	very stiff fine grained (*)
49.74	137.3	6.010	-7.00	4.377	0	<out of range>
49.90	190.3	-32768	-7.10	-32768	0	<out of range>
50.07	199.0	-32768	-7.40	-32768	0	<out of range>

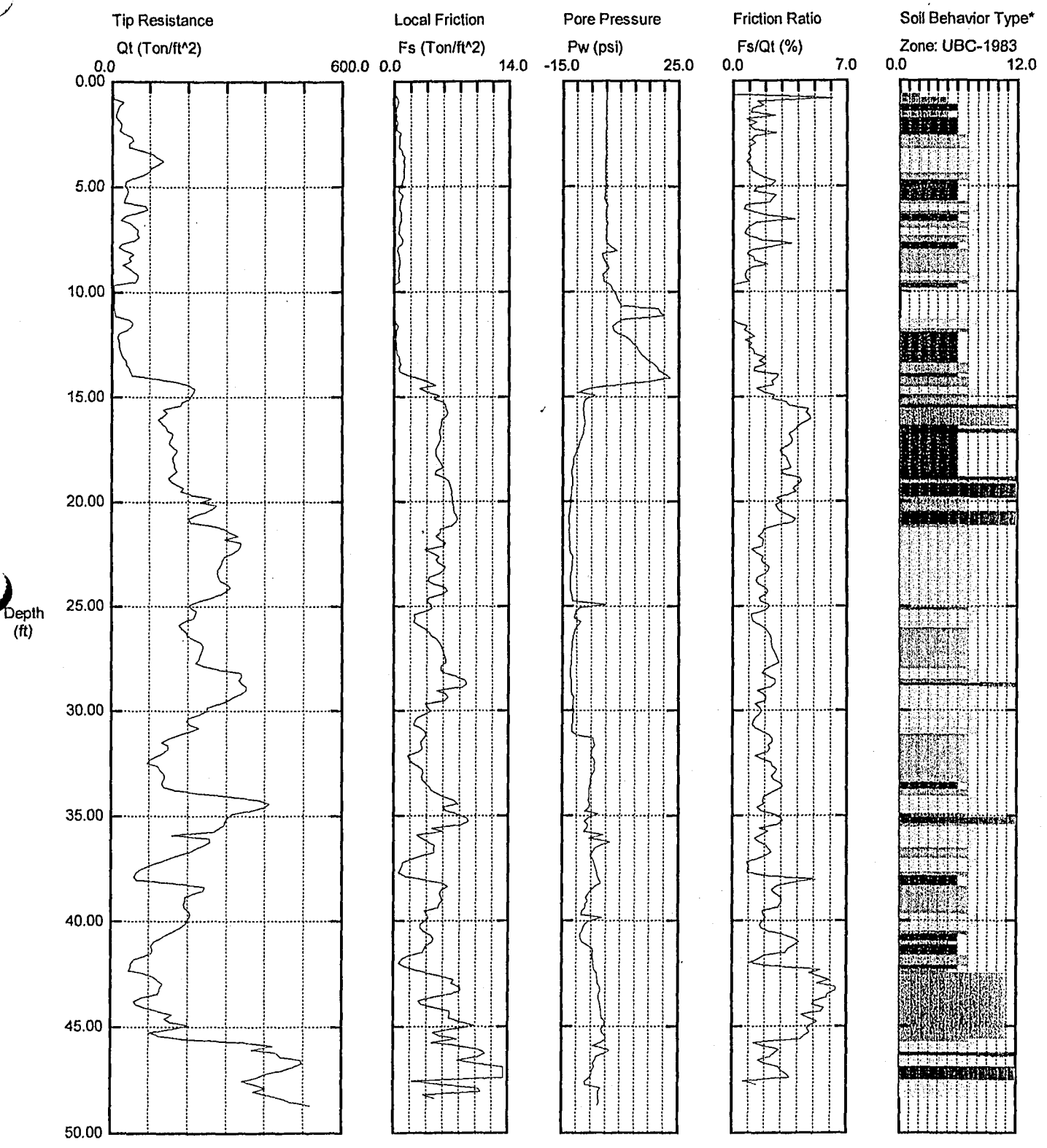
[illegible]l behavior type and SPT based on data from UBC-1983

Soil behavior type and SPT based on data from UBC-1983

Precision Sampling Inc.

Operator: Chris
Sounding: Urib05
Cone Used: 465

CPT Date/Time: 08-30-01 08:08
Location: Alameda Point
Job Number: s11-dgs-dp103



Maximum Depth = 48.72 feet

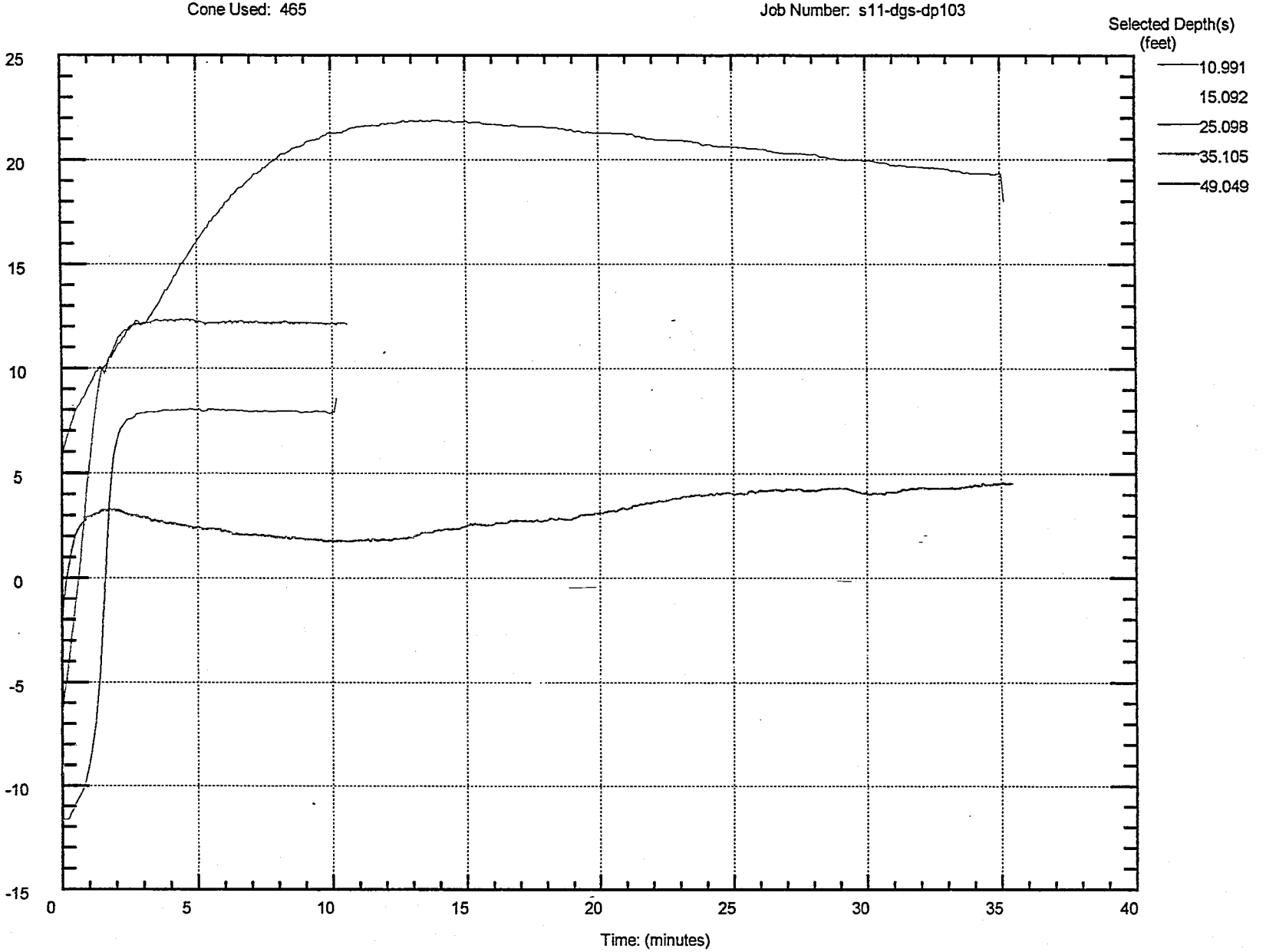
Depth Increment = 0.16 feet

1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

Precision Sampling Inc.

Operator Chris
Sounding: Urib08
Cone Used: 465

CPT Date/Time: 08-30-01 10:30
Location: Alameda Point
Job Number: s11-dgs-dp103



Maximum Pressure = 4.557 psi
Hydrostatic Pressure = 21.287 psi

Data File:Urib05
Operator:Chris
Cone ID:465
Customer:Hogentogler & Co

08-30-01 08:08
Location:Alameda Point
Job Number:s11-dgs-dp103
Units:English

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
0.16	0.0	0.000	0.00	-32768	0	<out of range>
0.33	0.0	0.000	0.00	-32768	0	<out of range>
0.49	0.0	-0.010	0.00	-32768	0	<out of range>
0.66	0.0	0.010	0.00	-32768	2	organic material
0.82	6.6	0.400	0.00	6.061	5	clayey silt to silty clay
0.98	30.9	0.460	0.00	1.489	5	clayey silt to silty clay
1.15	18.4	0.350	-0.10	1.902	6	sandy silt to clayey silt
1.31	14.3	0.170	-0.10	1.189	6	sandy silt to clayey silt
1.48	10.9	0.120	-0.10	1.101	5	clayey silt to silty clay
1.64	8.8	0.230	-0.30	2.615	5	clayey silt to silty clay
1.80	14.4	0.120	-0.30	0.834	6	sandy silt to clayey silt
1.97	23.6	0.340	-0.20	1.441	6	sandy silt to clayey silt
2.13	24.5	0.240	-0.10	0.980	6	sandy silt to clayey silt
2.30	20.4	0.260	-0.30	1.275	6	sandy silt to clayey silt
2.46	30.8	0.820	-0.30	2.663	6	sandy silt to clayey silt
2.62	48.9	0.650	-0.30	1.329	7	silty sand to sandy silt
2.79	57.1	0.620	-0.40	1.086	7	silty sand to sandy silt
2.95	44.2	0.610	-0.30	1.380	7	silty sand to sandy silt
3.12	44.9	0.430	-0.40	0.958	7	silty sand to sandy silt
3.28	80.2	0.850	-0.30	1.060	8	sand to silty sand
3.44	106.7	0.950	-0.30	0.890	8	sand to silty sand
3.61	117.6	1.240	-0.40	1.054	8	sand to silty sand
3.77	135.0	1.120	-0.50	0.830	8	sand to silty sand
3.94	121.0	1.190	-0.50	0.984	8	sand to silty sand
4.10	102.0	1.180	-0.40	1.157	8	sand to silty sand
4.27	97.2	1.090	-0.60	1.121	8	sand to silty sand
4.43	82.3	1.180	-0.40	1.434	7	silty sand to sandy silt
4.59	54.6	1.070	-0.60	1.960	7	silty sand to sandy silt
4.76	35.9	0.940	-0.50	2.619	6	sandy silt to clayey silt
4.92	33.3	0.780	-0.50	2.343	6	sandy silt to clayey silt
5.09	41.1	0.580	-0.60	1.411	6	sandy silt to clayey silt
5.25	41.5	0.520	-0.50	1.253	6	sandy silt to clayey silt
5.41	38.8	1.030	-0.60	2.655	6	sandy silt to clayey silt
5.58	32.7	0.800	-0.70	2.447	6	sandy silt to clayey silt
5.74	30.2	0.670	-0.20	2.219	7	silty sand to sandy silt
5.91	85.6	0.640	0.40	0.748	8	sand to silty sand
6.07	93.2	0.600	-0.30	0.644	8	sand to silty sand
6.23	64.0	0.800	-0.30	1.250	7	silty sand to sandy silt
6.40	34.1	0.730	-0.30	2.141	6	sandy silt to clayey silt
6.56	23.2	0.880	-0.30	3.794	6	sandy silt to clayey silt
6.73	45.5	0.680	0.30	1.494	7	silty sand to sandy silt
6.89	58.5	0.590	0.00	1.009	7	silty sand to sandy silt
7.05	69.4	0.550	-0.30	0.793	8	sand to silty sand
7.22	65.2	0.450	0.00	0.690	8	sand to silty sand
7.38	71.6	0.740	-0.40	1.034	7	silty sand to sandy silt
7.55	55.0	0.970	-0.30	1.764	7	silty sand to sandy silt
7.71	24.4	0.870	0.00	3.566	6	sandy silt to clayey silt
7.87	18.1	0.430	1.60	2.373	6	sandy silt to clayey silt
8.04	34.0	0.370	3.60	1.090	7	silty sand to sandy silt
8.20	57.9	0.490	-1.60	0.847	7	silty sand to sandy silt
8.37	44.9	0.560	-1.30	1.248	7	silty sand to sandy silt
8.53	50.2	0.660	-0.70	1.315	7	silty sand to sandy silt
8.69	28.7	0.610	0.00	2.125	7	silty sand to sandy silt
8.86	43.2	0.490	0.70	1.134	7	silty sand to sandy silt

1 behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
9.02	54.4	0.430	0.00	0.790	7	silty sand to sandy silt
9.19	69.3	0.500	-1.60	0.722	8	sand to silty sand
9.35	68.0	0.500	-1.10	0.735	8	sand to silty sand
[illegible].51	61.4	0.620	-1.00	1.010	7	silty sand to sandy silt
[illegible].68	3.5	0.000	1.30	0.000	6	sandy silt to clayey silt
[illegible]9.84	4.9	0.000	1.90	0.000	0	<out of range>
10.01	4.5	0.000	2.60	0.000	0	<out of range>
10.17	4.8	0.000	3.30	0.000	0	<out of range>
10.33	5.3	0.000	3.60	0.000	0	<out of range>
10.50	5.2	-0.020	4.30	-0.387	0	<out of range>
10.66	5.6	-0.020	4.90	-0.359	0	<out of range>
10.83	6.8	-0.010	17.80	-0.148	0	<out of range>
10.99	7.1	-0.030	18.60	-0.424	0	<out of range>
11.15	10.1	-0.040	19.90	-0.397	0	<out of range>
11.32	45.1	-0.010	5.20	-0.022	8	sand to silty sand
11.48	55.1	0.130	3.30	0.236	8	sand to silty sand
11.65	50.4	0.440	2.00	0.873	8	sand to silty sand
11.81	39.6	0.260	2.40	0.656	7	silty sand to sandy silt
11.98	19.8	0.190	3.70	0.962	6	sandy silt to clayey silt
12.14	14.5	0.190	6.60	1.311	6	sandy silt to clayey silt
12.30	18.5	0.140	8.00	0.756	6	sandy silt to clayey silt
12.47	19.3	0.220	9.10	1.138	6	sandy silt to clayey silt
12.63	20.1	0.190	10.40	0.943	6	sandy silt to clayey silt
12.80	22.1	0.280	11.00	1.269	6	sandy silt to clayey silt
12.96	25.0	0.320	12.00	1.281	6	sandy silt to clayey silt
13.12	29.6	0.580	13.10	1.960	6	sandy silt to clayey silt
13.29	36.4	0.570	14.40	1.566	6	sandy silt to clayey silt
13.45	38.1	0.760	16.20	1.993	7	silty sand to sandy silt
13.62	45.4	0.600	17.60	1.323	7	silty sand to sandy silt
13.78	47.3	0.610	18.20	1.291	7	silty sand to sandy silt
13.94	52.4	1.470	20.50	2.806	6	sandy silt to clayey silt
[illegible]4.11	105.0	2.800	21.90	2.666	7	silty sand to sandy silt
[illegible].27	164.2	3.900	14.90	2.375	7	silty sand to sandy silt
[illegible].44	198.6	4.960	3.00	2.497	7	silty sand to sandy silt
14.60	215.4	3.060	-6.10	1.421	8	sand to silty sand
14.76	212.1	3.970	-9.70	1.872	8	sand to silty sand
14.93	208.4	5.310	-4.00	2.547	7	silty sand to sandy silt
15.09	201.9	4.830	-7.10	2.392	7	silty sand to sandy silt
15.26	183.6	6.010	-7.80	3.274	7	silty sand to sandy silt
15.42	178.6	6.180	-7.80	3.460	12	sand to clayey sand (*)
15.58	134.6	6.240	-8.10	4.637	11	very stiff fine grained (*)
15.75	144.4	6.440	-7.80	4.460	11	very stiff fine grained (*)
15.91	132.4	6.220	-7.80	4.698	11	very stiff fine grained (*)
16.08	121.1	5.750	-7.70	4.749	11	very stiff fine grained (*)
16.24	132.6	5.650	-7.50	4.261	11	very stiff fine grained (*)
16.40	142.6	5.650	-7.80	3.962	6	sandy silt to clayey silt
16.57	145.5	5.520	-7.80	3.794	12	sand to clayey sand (*)
16.73	159.1	5.530	-8.00	3.476	6	sandy silt to clayey silt
16.90	157.7	5.600	-8.40	3.552	6	sandy silt to clayey silt
17.06	151.5	5.540	-9.10	3.658	6	sandy silt to clayey silt
17.22	150.3	5.320	-9.50	3.540	6	sandy silt to clayey silt
17.39	161.1	5.100	-9.70	3.167	6	sandy silt to clayey silt
17.55	170.9	4.960	-10.20	2.903	6	sandy silt to clayey silt
17.72	165.8	4.960	-10.80	2.991	6	sandy silt to clayey silt
17.88	159.7	5.190	-11.30	3.249	6	sandy silt to clayey silt
18.04	160.8	5.450	-11.40	3.389	6	sandy silt to clayey silt
18.21	163.8	5.700	-11.40	3.479	6	sandy silt to clayey silt
18.37	164.8	5.880	-11.70	3.567	6	sandy silt to clayey silt
18.54	170.4	5.050	-12.00	2.963	6	sandy silt to clayey silt

[illegible]l behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
18.70	159.9	4.920	-12.00	3.076	6	sandy silt to clayey silt
18.86	148.9	6.070	-11.70	4.076	12	sand to clayey sand (*)
19.03	155.6	6.560	-11.70	4.215	11	very stiff fine grained (*)
19.19	169.6	6.720	-11.70	3.962	12	sand to clayey sand (*)
19.36	187.2	6.900	-12.00	3.685	12	sand to clayey sand (*)
19.52	180.3	7.000	-12.00	3.882	12	sand to clayey sand (*)
19.69	209.1	6.960	-12.00	3.328	12	sand to clayey sand (*)
19.85	259.8	7.010	-12.30	2.698	7	silty sand to sandy silt
20.01	229.9	6.970	-12.30	3.031	7	silty sand to sandy silt
20.18	273.2	7.150	-12.30	2.617	7	silty sand to sandy silt
20.34	260.0	7.140	-12.70	2.746	7	silty sand to sandy silt
20.51	243.9	7.210	-12.70	2.956	12	sand to clayey sand (*)
20.67	216.5	7.500	-13.00	3.464	12	sand to clayey sand (*)
20.83	199.8	7.700	-12.90	3.854	12	sand to clayey sand (*)
21.00	205.5	7.530	-12.80	3.664	12	sand to clayey sand (*)
21.16	263.0	6.950	-12.70	2.642	7	silty sand to sandy silt
21.33	294.8	5.570	-12.90	1.889	8	sand to silty sand
21.49	306.4	5.620	-12.90	1.834	8	sand to silty sand
21.65	327.9	5.060	-12.80	1.543	8	sand to silty sand
21.82	294.1	5.520	-12.80	1.877	8	sand to silty sand
21.98	337.3	6.160	-12.70	1.826	8	sand to silty sand
22.15	335.2	5.990	-12.70	1.787	8	sand to silty sand
22.31	328.2	3.720	-12.50	1.133	8	sand to silty sand
22.47	315.3	4.630	-12.30	1.468	8	sand to silty sand
22.64	292.3	5.450	-11.60	1.864	8	sand to silty sand
22.80	288.4	5.040	-11.70	1.747	8	sand to silty sand
22.97	285.5	5.410	-11.80	1.895	8	sand to silty sand
23.13	280.0	6.210	-11.90	2.218	8	sand to silty sand
23.29	274.6	5.980	-12.00	2.177	8	sand to silty sand
23.46	275.7	5.370	-12.30	1.948	8	sand to silty sand
23.62	277.4	4.240	-12.30	1.528	8	sand to silty sand
23.79	283.2	4.080	-12.30	1.441	8	sand to silty sand
23.95	300.4	4.760	-12.30	1.584	8	sand to silty sand
24.11	309.1	6.070	-12.30	1.964	8	sand to silty sand
24.28	297.7	6.450	-12.30	2.166	8	sand to silty sand
24.44	284.0	5.790	-12.00	2.039	8	sand to silty sand
24.61	258.8	4.160	-11.90	1.607	8	sand to silty sand
24.77	228.1	3.880	-11.70	1.701	8	sand to silty sand
24.93	203.4	4.490	-0.30	2.208	8	sand to silty sand
25.10	207.8	4.570	-9.30	2.200	7	silty sand to sandy silt
25.26	221.0	3.960	-10.50	1.791	8	sand to silty sand
25.43	216.7	2.420	-10.80	1.117	8	sand to silty sand
25.59	213.7	2.530	-11.00	1.184	9	sand
25.75	189.7	2.330	-8.70	1.228	8	sand to silty sand
25.92	174.7	2.880	-9.70	1.649	8	sand to silty sand
26.08	182.1	3.630	-10.60	1.993	7	silty sand to sandy silt
26.25	193.7	4.160	-11.00	2.147	7	silty sand to sandy silt
26.41	198.4	4.550	-11.40	2.293	7	silty sand to sandy silt
26.57	213.8	5.150	-11.40	2.408	7	silty sand to sandy silt
26.74	229.8	5.440	-11.70	2.367	7	silty sand to sandy silt
26.90	239.1	5.720	-11.70	2.392	7	silty sand to sandy silt
27.07	236.6	5.820	-11.90	2.460	7	silty sand to sandy silt
27.23	232.9	6.010	-12.00	2.580	7	silty sand to sandy silt
27.40	229.7	6.100	-12.00	2.655	7	silty sand to sandy silt
27.56	226.4	6.260	-12.00	2.765	7	silty sand to sandy silt
27.72	219.5	6.220	-12.00	2.833	7	silty sand to sandy silt
27.89	239.7	5.730	-12.20	2.390	7	silty sand to sandy silt
28.05	279.6	5.640	-12.30	2.017	8	sand to silty sand
28.22	337.2	6.130	-12.30	1.818	8	sand to silty sand

* Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
28.38	338.1	7.560	-12.30	2.236	8	sand to silty sand
28.54	331.2	8.600	-12.10	2.596	7	silty sand to sandy silt
28.71	339.5	8.820	-12.00	2.598	12	sand to clayey sand (*)
87	350.7	8.230	-12.00	2.347	8	sand to silty sand
.04	349.1	5.180	-12.00	1.484	8	sand to silty sand
29.20	338.4	6.260	-12.00	1.850	8	sand to silty sand
29.36	317.8	6.590	-11.00	2.073	8	sand to silty sand
29.53	301.9	6.120	-11.40	2.027	8	sand to silty sand
29.69	278.7	3.810	-11.40	1.367	8	sand to silty sand
29.86	248.1	4.120	-11.60	1.660	8	sand to silty sand
30.02	247.9	4.390	-11.10	1.771	8	sand to silty sand
30.18	226.9	3.670	-11.50	1.617	8	sand to silty sand
30.35	200.4	2.740	-11.50	1.367	8	sand to silty sand
30.51	196.2	2.460	-11.60	1.254	9	sand
30.68	205.9	2.400	-11.70	1.165	9	sand
30.84	228.2	3.220	-11.70	1.411	8	sand to silty sand
31.00	202.1	3.730	-11.80	1.845	8	sand to silty sand
31.17	174.6	3.900	-10.50	2.233	7	silty sand to sandy silt
31.33	151.0	3.610	-4.50	2.390	7	silty sand to sandy silt
31.50	130.9	3.210	-4.40	2.452	7	silty sand to sandy silt
31.66	148.6	3.250	-3.90	2.186	7	silty sand to sandy silt
31.82	148.4	3.420	-4.90	2.304	7	silty sand to sandy silt
31.99	138.5	2.930	-5.20	2.115	7	silty sand to sandy silt
32.15	121.7	1.660	-5.10	1.364	7	silty sand to sandy silt
32.32	103.4	1.860	-4.20	1.798	7	silty sand to sandy silt
32.48	94.6	2.260	-3.90	2.388	7	silty sand to sandy silt
32.64	121.2	2.940	-4.20	2.425	7	silty sand to sandy silt
32.81	127.2	3.450	-3.80	2.711	7	silty sand to sandy silt
32.97	135.7	3.500	-4.50	2.579	7	silty sand to sandy silt
33.14	139.6	3.330	-5.20	2.385	7	silty sand to sandy silt
33.30	135.8	3.400	-5.50	2.503	7	silty sand to sandy silt
.46	131.7	3.820	-5.40	2.900	6	sandy silt to clayey silt
.63	138.9	4.300	-5.70	3.095	6	sandy silt to clayey silt
.79	165.7	4.550	-5.90	2.746	7	silty sand to sandy silt
33.96	225.5	5.230	-5.80	2.319	7	silty sand to sandy silt
34.12	318.5	6.120	-5.80	1.921	8	sand to silty sand
34.28	384.9	7.170	-6.20	1.863	8	sand to silty sand
34.45	410.7	7.760	-5.70	1.889	8	sand to silty sand
34.61	396.6	5.920	-5.80	1.493	8	sand to silty sand
34.78	360.5	6.270	-7.40	1.739	8	sand to silty sand
34.94	313.0	7.710	-2.80	2.464	7	silty sand to sandy silt
35.10	301.0	8.900	-6.20	2.957	12	sand to clayey sand (*)
35.27	295.0	9.110	-7.40	3.088	12	sand to clayey sand (*)
35.43	292.4	8.070	-6.10	2.760	7	silty sand to sandy silt
35.60	279.1	4.600	-6.80	1.648	8	sand to silty sand
35.76	268.5	5.890	-7.80	2.194	8	sand to silty sand
35.93	158.0	2.720	-0.90	1.722	8	sand to silty sand
36.09	253.6	3.340	-5.80	1.317	8	sand to silty sand
36.25	257.9	4.200	1.40	1.628	8	sand to silty sand
36.42	239.3	4.910	-1.80	2.052	8	sand to silty sand
36.58	218.8	4.830	-3.90	2.207	7	silty sand to sandy silt
36.75	201.9	4.840	-4.70	2.397	7	silty sand to sandy silt
36.91	173.4	3.560	-5.50	2.053	7	silty sand to sandy silt
37.07	146.4	2.130	-4.60	1.455	8	sand to silty sand
37.24	121.1	1.050	-4.20	0.867	8	sand to silty sand
37.40	96.1	0.950	-3.80	0.988	8	sand to silty sand
37.57	75.6	0.710	-3.50	0.939	8	sand to silty sand
37.73	66.8	0.600	-3.20	0.899	7	silty sand to sandy silt
37.89	59.7	1.350	-2.90	2.263	6	sandy silt to clayey silt

l behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
38.06	68.9	3.510	-2.40	5.097	6	sandy silt to clayey silt
38.22	172.8	5.970	-1.80	3.455	6	sandy silt to clayey silt
38.39	242.8	6.500	-3.80	2.677	7	silty sand to sandy silt
[illegible].55	238.0	5.750	-5.20	2.416	7	silty sand to sandy silt
[illegible].71	210.1	5.480	-6.10	2.608	7	silty sand to sandy silt
38.88	191.7	5.710	-7.10	2.979	7	silty sand to sandy silt
39.04	193.0	5.840	-6.40	3.026	7	silty sand to sandy silt
39.21	188.3	5.500	-7.10	2.921	7	silty sand to sandy silt
39.37	191.7	5.360	-7.20	2.796	7	silty sand to sandy silt
39.53	202.3	3.720	-8.30	1.839	7	silty sand to sandy silt
39.70	206.0	3.930	-8.60	1.908	8	sand to silty sand
39.86	201.4	4.150	-1.20	2.061	8	sand to silty sand
40.03	197.9	3.640	-6.10	1.839	8	sand to silty sand
40.19	190.4	3.150	-7.50	1.654	8	sand to silty sand
40.35	178.1	3.170	-8.00	1.780	8	sand to silty sand
40.52	160.2	3.580	-8.40	2.235	7	silty sand to sandy silt
40.68	142.9	4.490	-9.00	3.143	6	sandy silt to clayey silt
40.85	125.8	4.790	-8.70	3.808	6	sandy silt to clayey silt
41.01	111.5	4.570	-8.10	4.099	5	clayey silt to silty clay
41.17	104.0	3.910	-6.10	3.759	6	sandy silt to clayey silt
41.34	107.3	3.670	-4.50	3.419	6	sandy silt to clayey silt
41.50	106.6	3.460	-4.50	3.245	6	sandy silt to clayey silt
41.67	86.5	1.650	-4.80	1.907	7	silty sand to sandy silt
41.83	60.5	0.930	-4.60	1.536	7	silty sand to sandy silt
41.99	52.8	0.560	-4.40	1.060	7	silty sand to sandy silt
42.16	53.0	1.240	-4.20	2.338	6	sandy silt to clayey silt
42.32	46.6	2.520	-4.10	5.403	5	clayey silt to silty clay
42.49	86.5	4.080	-3.00	4.719	11	very stiff fine grained (*)
42.65	111.6	6.030	-3.10	5.405	11	very stiff fine grained (*)
42.81	123.1	7.280	-2.90	5.916	11	very stiff fine grained (*)
42.98	134.4	6.950	-2.90	5.173	11	very stiff fine grained (*)
[illegible]3.14	127.6	8.050	-2.00	6.310	11	very stiff fine grained (*)
[illegible].31	128.0	8.060	-1.90	6.298	11	very stiff fine grained (*)
[illegible].47	120.8	7.010	-2.30	5.805	11	very stiff fine grained (*)
43.64	79.5	4.600	-2.60	5.789	11	very stiff fine grained (*)
43.80	59.7	3.000	-2.20	5.028	11	very stiff fine grained (*)
43.96	67.1	3.290	-1.90	4.905	11	very stiff fine grained (*)
44.13	88.4	4.970	-1.70	5.624	11	very stiff fine grained (*)
44.29	124.6	6.740	-1.60	5.410	11	very stiff fine grained (*)
44.46	159.3	6.760	-1.60	4.244	11	very stiff fine grained (*)
44.62	141.5	6.640	-1.40	4.693	11	very stiff fine grained (*)
44.78	154.6	8.060	-0.30	5.214	11	very stiff fine grained (*)
44.95	204.0	9.780	-0.30	4.794	11	very stiff fine grained (*)
45.11	161.1	7.390	-1.40	4.588	11	very stiff fine grained (*)
45.28	100.3	4.770	-1.20	4.757	11	very stiff fine grained (*)
45.44	125.7	5.490	0.00	4.368	11	very stiff fine grained (*)
45.60	184.7	7.710	0.00	4.174	7	silty sand to sandy silt
45.77	356.8	4.580	-1.60	1.284	8	sand to silty sand
45.93	418.8	7.950	-4.50	1.898	8	sand to silty sand
46.10	366.8	10.500	1.30	2.862	8	sand to silty sand
46.26	431.3	11.240	0.00	2.606	12	sand to clayey sand (*)
46.42	441.5	10.330	-3.20	2.340	8	sand to silty sand
46.59	490.9	7.760	-3.50	1.581	8	sand to silty sand
46.75	496.2	9.950	-4.50	2.005	8	sand to silty sand
46.92	471.2	13.370	-3.80	2.837	12	sand to clayey sand (*)
47.08	443.5	13.370	-4.80	3.014	12	sand to clayey sand (*)
47.24	399.1	13.370	-4.80	3.350	12	sand to clayey sand (*)
47.41	378.7	13.370	-5.50	3.530	12	sand to clayey sand (*)
47.57	340.6	2.210	-7.10	0.649	8	sand to silty sand

[illegible]l behavior type and SPT based on data from UBC-1983

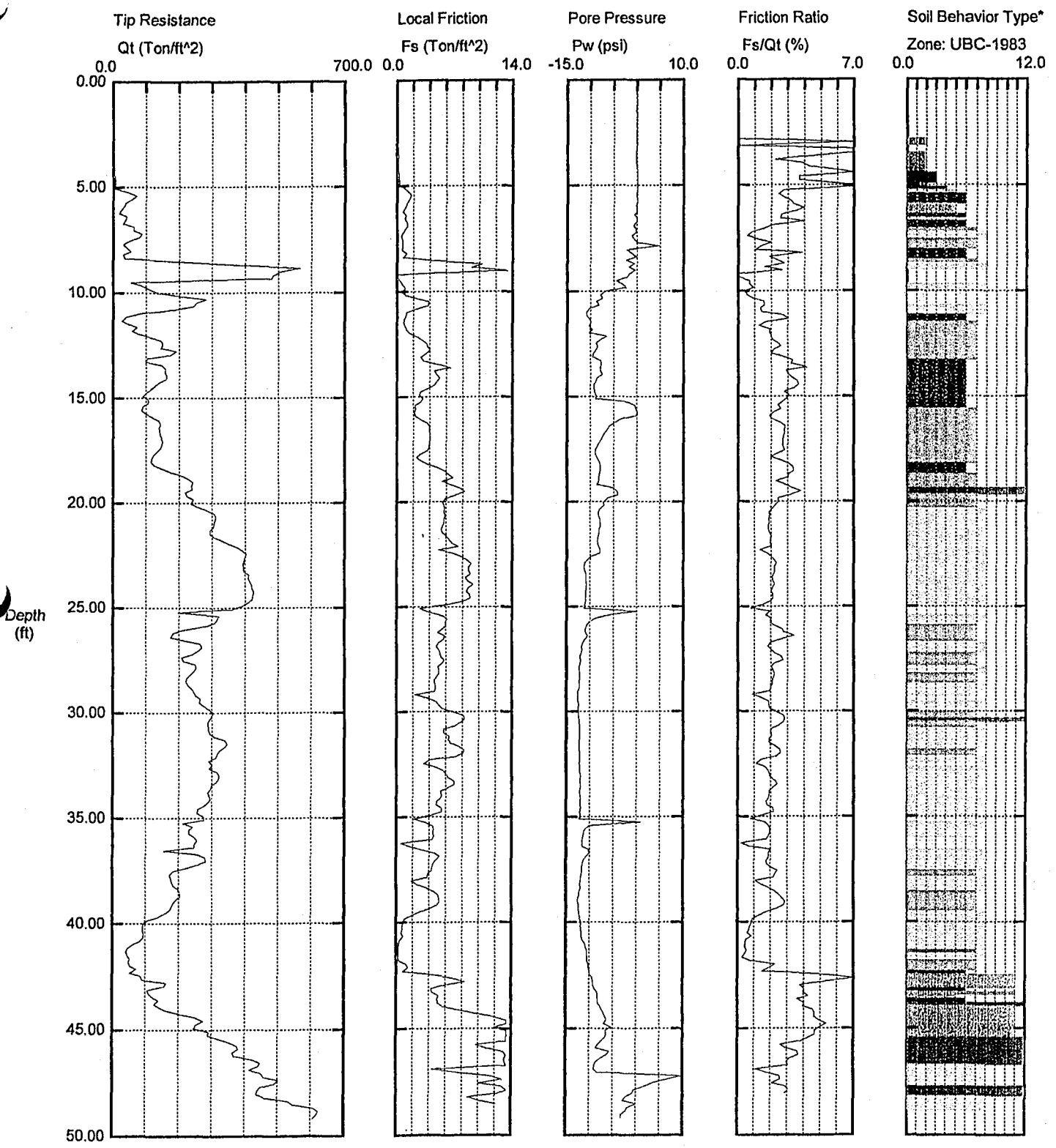
Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
47.74	373.7	5.650	-7.00	1.512	8	sand to silty sand
47.90	402.5	10.310	-1.60	2.562	8	sand to silty sand
48.06	370.5	10.680	-2.50	2.883	8	sand to silty sand
48.23	402.5	3.620	-2.60	0.899	8	sand to silty sand
[illegible].39	445.1	4.990	-2.60	1.121	0	<out of range>
48.56	464.7	-32768	-2.20	-32768	0	<out of range>
48.72	517.4	-32768	-2.90	-32768	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Precision Sampling Inc.

Operator: Chris
Sounding: Urib09
Cone Used: 465

CPT Date/Time: 08-30-01 13:58
Location: Alameda Point
Job Number: s11-dgs-dp109



Maximum Depth = 49.21 feet

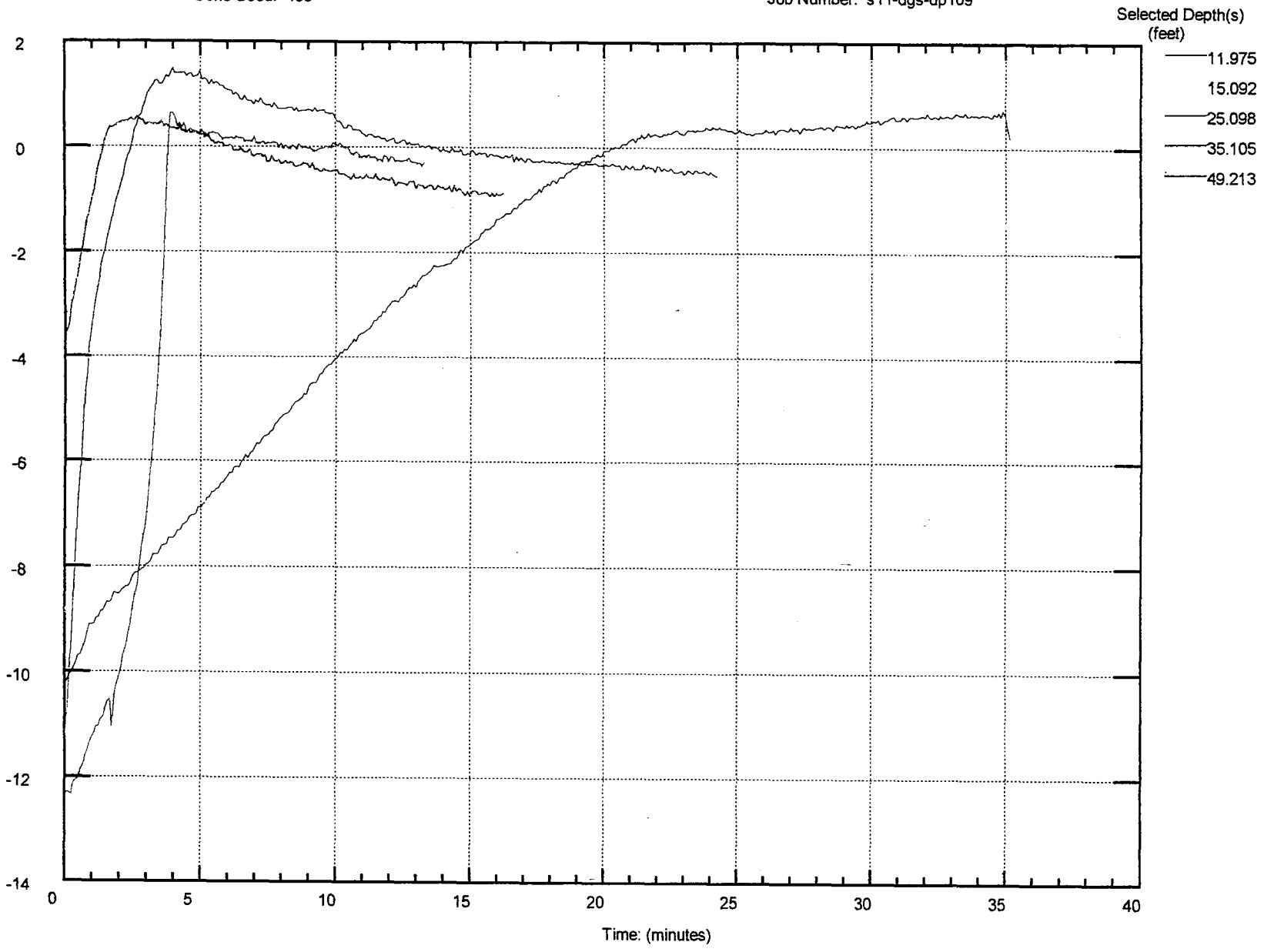
Depth Increment = 0.16 feet

1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

Precision Sampling Inc.

Operator Chris
Sounding: Urib09
Cone Used: 465

CPT Date/Time: 08-30-01 13:58
Location: Alameda Point
Job Number: s11-dgs-dp109



Maximum Pressure = 0.549 psi
Hydrostatic Pressure = 21.358 psi

Data File:Urib09
Operator:Chris
Cone ID:465
Customer:Hogentogler & Co

08-30-01 13:58
Location:Alameda Point
Job Number:s11-dgs-dp109
Units:English

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
0.16	0.0	0.010	0.00	-32768	0	<out of range>
0.33	0.0	0.010	0.00	-32768	0	<out of range>
0.49	0.0	0.010	-0.10	-694.445	0	<out of range>
0.66	0.0	0.010	-0.20	-347.222	0	<out of range>
0.82	0.0	0.010	-0.10	-694.445	0	<out of range>
0.98	0.0	0.010	-0.10	-694.445	0	<out of range>
1.15	0.0	0.010	-0.10	-694.445	0	<out of range>
1.31	0.0	0.010	-0.20	-347.222	0	<out of range>
1.48	0.0	0.010	-0.30	-231.482	0	<out of range>
1.64	0.0	0.010	0.00	-32768	0	<out of range>
1.80	0.0	0.010	-0.20	-347.222	0	<out of range>
1.97	0.0	0.000	-0.20	0.000	0	<out of range>
2.13	0.0	0.000	-0.30	0.000	0	<out of range>
2.30	0.0	0.000	-0.20	0.000	0	<out of range>
2.46	0.0	0.000	-0.30	0.000	0	<out of range>
2.62	0.1	0.000	-0.30	0.000	0	<out of range>
2.79	0.0	0.000	-0.30	0.000	2	organic material
2.95	0.1	0.010	-0.30	10.452	2	organic material
3.12	0.2	0.000	-0.20	0.000	0	<out of range>
3.28	0.2	0.040	-0.20	20.292	0	<out of range>
3.44	0.7	0.080	-0.30	11.500	2	organic material
3.61	2.2	0.100	-0.30	4.554	2	organic material
3.77	0.9	0.020	-0.30	2.233	2	organic material
3.94	0.8	0.030	-0.30	3.770	2	organic material
4.10	1.4	0.060	-0.20	4.295	2	organic material
4.27	1.4	0.080	0.00	5.714	2	organic material
4.43	1.6	0.120	0.00	7.500	3	clay
4.59	4.1	0.150	0.00	3.659	3	clay
4.76	4.1	0.150	0.00	3.659	3	clay
4.92	2.8	0.170	0.00	6.071	2	organic material
5.09	6.2	0.710	0.00	11.452	4	silty clay to clay
5.25	42.9	1.170	-0.10	2.727	5	clayey silt to silty clay
5.41	68.0	1.630	-0.30	2.397	6	sandy silt to clayey silt
5.58	54.7	1.490	-0.20	2.724	6	sandy silt to clayey silt
5.74	38.1	1.200	0.00	3.150	6	sandy silt to clayey silt
5.91	32.7	1.090	-0.30	3.334	5	clayey silt to silty clay
6.07	22.6	0.890	-0.10	3.938	5	clayey silt to silty clay
6.23	17.7	0.610	0.00	3.446	5	clayey silt to silty clay
6.40	39.5	1.030	-0.70	2.608	6	sandy silt to clayey silt
6.56	35.5	0.890	0.00	2.507	5	clayey silt to silty clay
6.73	28.6	1.140	-0.20	3.986	6	sandy silt to clayey silt
6.89	61.1	1.230	-0.90	2.014	6	sandy silt to clayey silt
7.05	59.9	0.910	-0.40	1.519	7	silty sand to sandy silt
7.22	85.2	0.640	-0.30	0.751	8	sand to silty sand
7.38	76.8	0.390	-1.30	0.508	8	sand to silty sand
7.55	46.2	0.550	-0.70	1.191	7	silty sand to sandy silt
7.71	28.9	0.570	0.00	1.972	7	silty sand to sandy silt
7.87	40.6	0.560	4.60	1.380	7	silty sand to sandy silt
8.04	51.0	0.510	-2.30	1.001	6	sandy silt to clayey silt
8.20	28.0	1.070	-1.30	3.824	6	sandy silt to clayey silt
8.37	32.7	0.610	-0.30	1.866	6	sandy silt to clayey silt
8.53	177.6	4.100	-2.50	2.309	7	silty sand to sandy silt
8.69	374.9	10.300	-0.70	2.747	8	sand to silty sand
8.86	565.3	9.050	-1.80	1.601	8	sand to silty sand

Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
9.02	506.7	13.350	-0.50	2.635	0	<out of range>
9.19	483.9	-32768	-1.80	-32768	0	<out of range>
9.35	478.0	-32768	-2.30	-32768	0	<out of range>
.51	52.3	0.350	-4.60	0.669	0	<out of range>
.68	85.2	0.550	-3.30	0.646	8	sand to silty sand
9.84	106.7	0.950	-2.40	0.891	8	sand to silty sand
10.01	133.8	0.540	-6.90	0.404	9	sand
10.17	204.1	1.000	-8.00	0.490	9	sand
10.33	280.6	2.360	-7.50	0.841	9	sand
10.50	250.8	3.810	-8.90	1.519	9	sand
10.66	239.8	3.720	-8.40	1.551	8	sand to silty sand
10.83	185.7	2.410	-10.40	1.298	8	sand to silty sand
10.99	79.2	1.120	-11.00	1.413	8	sand to silty sand
11.15	36.9	0.980	-11.00	2.653	6	sandy silt to clayey silt
11.32	25.4	0.760	-10.40	2.998	6	sandy silt to clayey silt
11.48	46.3	0.730	-10.00	1.578	7	silty sand to sandy silt
11.65	72.4	0.900	-10.40	1.244	7	silty sand to sandy silt
11.81	56.1	1.080	-9.70	1.926	7	silty sand to sandy silt
11.98	76.8	1.440	-10.40	1.876	7	silty sand to sandy silt
12.14	116.0	2.330	-6.60	2.009	7	silty sand to sandy silt
12.30	144.0	2.930	-8.00	2.035	7	silty sand to sandy silt
12.47	149.2	3.530	-9.00	2.366	7	silty sand to sandy silt
12.63	143.2	3.660	-8.60	2.556	7	silty sand to sandy silt
12.80	190.7	4.030	-9.00	2.114	7	silty sand to sandy silt
12.96	171.0	3.380	-9.60	1.977	7	silty sand to sandy silt
13.12	103.5	2.790	-9.70	2.697	7	silty sand to sandy silt
13.29	97.5	3.170	-7.90	3.252	6	sandy silt to clayey silt
13.45	145.7	4.610	-7.80	3.164	6	sandy silt to clayey silt
13.62	156.9	6.460	-8.10	4.118	6	sandy silt to clayey silt
13.78	154.3	4.440	-8.10	2.878	6	sandy silt to clayey silt
13.94	160.1	4.760	-7.60	2.973	6	sandy silt to clayey silt
4.11	158.3	5.070	-8.70	3.203	6	sandy silt to clayey silt
.27	137.1	4.830	-9.10	3.524	6	sandy silt to clayey silt
14.44	124.9	4.510	-9.40	3.612	6	sandy silt to clayey silt
14.60	111.6	3.780	-9.40	3.388	6	sandy silt to clayey silt
14.76	98.3	2.740	-9.30	2.788	6	sandy silt to clayey silt
14.93	89.1	2.710	-9.00	3.043	6	sandy silt to clayey silt
15.09	106.3	3.080	-9.00	2.898	6	sandy silt to clayey silt
15.26	105.0	2.770	-2.20	2.639	6	sandy silt to clayey silt
15.42	89.0	2.110	-0.60	2.371	6	sandy silt to clayey silt
15.58	84.6	2.160	-0.40	2.553	7	silty sand to sandy silt
15.75	95.9	2.030	0.00	2.117	7	silty sand to sandy silt
15.91	117.1	2.180	-0.40	1.862	7	silty sand to sandy silt
16.08	136.1	2.760	-3.60	2.027	7	silty sand to sandy silt
16.24	142.3	3.600	-5.00	2.529	7	silty sand to sandy silt
16.40	137.3	3.870	-6.10	2.818	7	silty sand to sandy silt
16.57	139.2	3.840	-6.60	2.759	7	silty sand to sandy silt
16.73	140.2	3.890	-7.10	2.775	7	silty sand to sandy silt
16.90	145.3	3.920	-7.50	2.698	7	silty sand to sandy silt
17.06	148.7	3.940	-7.90	2.650	7	silty sand to sandy silt
17.22	145.8	3.870	-8.40	2.655	7	silty sand to sandy silt
17.39	141.9	3.830	-8.80	2.700	7	silty sand to sandy silt
17.55	131.4	3.680	-9.10	2.801	7	silty sand to sandy silt
17.72	119.5	2.720	-9.10	2.277	7	silty sand to sandy silt
17.88	116.7	2.320	-8.80	1.988	7	silty sand to sandy silt
18.04	113.4	2.890	-8.40	2.549	7	silty sand to sandy silt
18.21	124.2	3.800	-8.10	3.060	6	sandy silt to clayey silt
18.37	147.8	4.860	-8.10	3.289	6	sandy silt to clayey silt
18.54	173.3	5.760	-8.10	3.324	6	sandy silt to clayey silt

l behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
18.70	203.9	6.220	-8.20	3.051	7	silty sand to sandy silt
18.86	225.7	6.730	-8.40	2.982	7	silty sand to sandy silt
19.03	240.7	5.460	-8.40	2.269	7	silty sand to sandy silt
[illegible].19	234.2	6.510	-8.70	2.780	7	silty sand to sandy silt
[illegible].36	237.8	7.660	-5.20	3.221	12	sand to clayey sand (*)
19.52	216.2	8.140	-4.50	3.764	12	sand to clayey sand (*)
19.69	222.0	6.910	-4.30	3.112	7	silty sand to sandy silt
19.85	243.2	5.780	-6.50	2.377	7	silty sand to sandy silt
20.01	232.4	5.520	-7.30	2.375	7	silty sand to sandy silt
20.18	252.2	5.650	-7.10	2.240	7	silty sand to sandy silt
20.34	281.4	5.700	-8.10	2.026	8	sand to silty sand
20.51	304.8	5.660	-8.50	1.857	8	sand to silty sand
20.67	310.0	5.830	-8.40	1.881	8	sand to silty sand
20.83	307.8	5.650	-8.10	1.836	8	sand to silty sand
21.00	304.5	5.640	-8.10	1.852	8	sand to silty sand
21.16	303.7	5.520	-7.90	1.818	8	sand to silty sand
21.33	292.4	5.310	-8.20	1.816	8	sand to silty sand
21.49	292.1	5.430	-8.20	1.859	8	sand to silty sand
21.65	304.6	6.000	-8.50	1.970	8	sand to silty sand
21.82	327.5	6.270	-8.60	1.915	8	sand to silty sand
21.98	348.7	6.660	-8.60	1.910	8	sand to silty sand
22.15	372.4	7.370	-8.40	1.979	8	sand to silty sand
22.31	390.5	4.990	-8.00	1.278	8	sand to silty sand
22.47	401.7	6.750	-8.10	1.680	8	sand to silty sand
22.64	396.5	7.860	-10.10	1.983	8	sand to silty sand
22.80	396.6	8.470	-10.80	2.135	8	sand to silty sand
22.97	392.1	8.980	-11.30	2.290	8	sand to silty sand
23.13	395.4	8.630	-11.40	2.182	8	sand to silty sand
23.29	394.1	8.650	-11.30	2.195	8	sand to silty sand
23.46	410.6	8.870	-11.00	2.160	8	sand to silty sand
23.62	407.7	8.270	-11.00	2.028	8	sand to silty sand
[illegible]3.79	413.9	8.600	-11.00	2.078	8	sand to silty sand
[illegible].95	418.2	9.210	-10.90	2.202	8	sand to silty sand
[illegible].11	418.7	8.660	-10.90	2.068	8	sand to silty sand
24.28	424.2	8.380	-11.10	1.975	8	sand to silty sand
24.44	422.4	8.740	-11.10	2.069	8	sand to silty sand
24.61	420.4	8.790	-11.10	2.091	8	sand to silty sand
24.77	408.8	7.960	-11.10	1.947	8	sand to silty sand
24.93	390.1	5.640	-11.30	1.446	9	sand
25.10	360.8	2.750	-11.40	0.762	9	sand
25.26	195.4	3.680	-0.30	1.883	9	sand
25.43	318.7	5.220	-6.20	1.638	8	sand to silty sand
25.59	314.1	6.100	-9.10	1.942	8	sand to silty sand
25.75	306.6	5.850	-10.30	1.908	8	sand to silty sand
25.92	277.9	5.950	-10.80	2.141	7	silty sand to sandy silt
26.08	209.1	5.530	-11.10	2.644	7	silty sand to sandy silt
26.25	179.8	4.950	-11.10	2.752	7	silty sand to sandy silt
26.41	172.5	5.810	-10.60	3.367	7	silty sand to sandy silt
26.57	216.0	5.620	-11.20	2.601	7	silty sand to sandy silt
26.74	260.9	5.060	-11.60	1.939	8	sand to silty sand
26.90	268.4	4.770	-11.90	1.777	8	sand to silty sand
27.07	256.1	5.050	-11.80	1.972	8	sand to silty sand
27.23	237.3	5.240	-12.00	2.208	7	silty sand to sandy silt
27.40	205.7	5.290	-12.30	2.571	7	silty sand to sandy silt
27.56	212.6	5.720	-12.10	2.690	7	silty sand to sandy silt
27.72	247.7	5.400	-12.20	2.180	7	silty sand to sandy silt
27.89	250.7	4.920	-12.40	1.962	8	sand to silty sand
28.05	241.1	5.010	-12.40	2.078	8	sand to silty sand
28.22	231.8	5.020	-12.30	2.165	7	silty sand to sandy silt

[illegible]l behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
28.38	222.1	4.710	-12.30	2.120	7	silty sand to sandy silt
28.54	220.7	4.520	-12.30	2.048	7	silty sand to sandy silt
28.71	226.9	4.660	-12.30	2.054	8	sand to silty sand
.87	237.7	4.720	-12.30	1.986	8	sand to silty sand
.04	244.5	4.610	-12.60	1.885	8	sand to silty sand
29.20	250.4	2.190	-12.70	0.875	8	sand to silty sand
29.36	263.6	3.650	-12.70	1.385	9	sand
29.53	260.1	4.740	-12.60	1.822	8	sand to silty sand
29.69	273.9	5.050	-12.40	1.844	8	sand to silty sand
29.86	292.3	5.510	-12.60	1.885	8	sand to silty sand
30.02	303.6	6.860	-12.50	2.259	7	silty sand to sandy silt
30.18	297.6	8.060	-12.50	2.708	7	silty sand to sandy silt
30.35	289.8	8.170	-12.40	2.819	12	sand to clayey sand (*)
30.51	284.4	7.720	-12.40	2.714	7	silty sand to sandy silt
30.68	287.3	6.980	-12.30	2.429	7	silty sand to sandy silt
30.84	286.8	5.680	-12.30	1.980	8	sand to silty sand
31.00	291.4	5.580	-12.30	1.915	8	sand to silty sand
31.17	307.7	6.290	-12.30	2.044	8	sand to silty sand
31.33	339.3	6.250	-12.30	1.842	8	sand to silty sand
31.50	346.5	6.530	-12.30	1.884	8	sand to silty sand
31.66	336.8	7.480	-12.30	2.221	8	sand to silty sand
31.82	322.3	8.120	-12.30	2.519	7	silty sand to sandy silt
31.99	314.5	8.090	-12.20	2.572	7	silty sand to sandy silt
32.15	309.8	7.120	-12.20	2.298	8	sand to silty sand
32.32	289.4	3.960	-12.20	1.368	8	sand to silty sand
32.48	299.8	3.260	-12.30	1.087	9	sand
32.64	290.1	4.650	-12.20	1.603	8	sand to silty sand
32.81	313.8	5.660	-12.30	1.804	8	sand to silty sand
32.97	320.1	6.030	-12.10	1.884	8	sand to silty sand
33.14	318.9	6.250	-12.10	1.960	8	sand to silty sand
33.30	310.1	6.910	-12.20	2.228	8	sand to silty sand
.46	297.0	6.950	-12.10	2.340	8	sand to silty sand
.63	293.5	6.060	-12.10	2.065	8	sand to silty sand
.79	284.1	5.260	-12.30	1.851	8	sand to silty sand
33.96	290.0	5.400	-12.20	1.862	8	sand to silty sand
34.12	295.4	5.330	-12.10	1.804	8	sand to silty sand
34.28	285.8	4.860	-12.10	1.700	8	sand to silty sand
34.45	274.5	4.790	-12.10	1.745	8	sand to silty sand
34.61	256.6	5.440	-12.00	2.120	8	sand to silty sand
34.78	254.7	5.470	-12.20	2.147	8	sand to silty sand
34.94	271.9	4.160	-12.10	1.530	8	sand to silty sand
35.10	274.2	2.050	-12.30	0.748	9	sand
35.27	212.2	3.440	0.90	1.621	8	sand to silty sand
35.43	240.3	4.380	-10.20	1.823	8	sand to silty sand
35.60	229.4	4.490	-11.10	1.957	8	sand to silty sand
35.76	228.2	4.380	-11.40	1.919	8	sand to silty sand
35.93	245.8	4.480	-11.50	1.822	8	sand to silty sand
36.09	252.7	4.270	-11.70	1.690	9	sand
36.25	244.4	0.450	-11.70	0.184	9	sand
36.42	245.3	1.540	-11.70	0.628	9	sand
36.58	152.8	2.950	-10.40	1.931	8	sand to silty sand
36.75	256.5	4.630	-10.30	1.805	8	sand to silty sand
36.91	279.2	5.130	-11.00	1.837	8	sand to silty sand
37.07	279.9	4.730	-11.40	1.690	8	sand to silty sand
37.24	257.4	4.420	-11.60	1.717	8	sand to silty sand
37.40	218.3	4.300	-11.70	1.969	8	sand to silty sand
37.57	180.2	4.260	-11.70	2.364	7	silty sand to sandy silt
37.73	170.4	3.800	-11.80	2.230	7	silty sand to sandy silt
37.89	174.4	3.670	-12.00	2.104	8	sand to silty sand

l behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
38.06	177.0	1.810	-12.00	1.022	8	sand to silty sand
38.22	182.0	2.480	-12.20	1.362	8	sand to silty sand
38.39	196.5	3.600	-12.00	1.832	8	sand to silty sand
[illegible].55	202.4	4.510	-12.30	2.228	7	silty sand to sandy silt
[illegible].71	202.6	4.980	-12.30	2.458	7	silty sand to sandy silt
38.88	190.8	5.080	-12.60	2.662	7	silty sand to sandy silt
39.04	181.3	5.150	-12.60	2.840	7	silty sand to sandy silt
39.21	176.3	4.860	-12.40	2.756	7	silty sand to sandy silt
39.37	170.2	3.880	-12.50	2.279	7	silty sand to sandy silt
39.53	156.1	2.620	-12.40	1.678	8	sand to silty sand
39.70	135.7	1.640	-12.30	1.208	8	sand to silty sand
39.86	104.2	0.910	-12.10	0.873	8	sand to silty sand
40.03	91.5	0.750	-11.90	0.819	8	sand to silty sand
40.19	89.4	0.650	-12.00	0.727	8	sand to silty sand
40.35	90.6	0.610	-11.90	0.673	8	sand to silty sand
40.52	92.9	0.510	-11.80	0.549	8	sand to silty sand
40.68	91.5	0.760	-11.80	0.830	8	sand to silty sand
40.85	80.3	0.370	-11.70	0.461	8	sand to silty sand
41.01	56.6	0.240	-11.10	0.424	8	sand to silty sand
41.17	42.7	0.170	-11.00	0.398	8	sand to silty sand
41.34	39.2	0.200	-10.70	0.510	7	silty sand to sandy silt
41.50	42.3	0.160	-10.70	0.378	8	sand to silty sand
41.67	50.1	0.110	-10.70	0.219	8	sand to silty sand
41.83	45.8	0.320	-10.70	0.698	7	silty sand to sandy silt
41.99	50.7	1.130	-10.40	2.231	7	silty sand to sandy silt
42.16	69.8	1.340	-10.40	1.921	7	silty sand to sandy silt
42.32	49.5	0.710	-10.20	1.436	6	sandy silt to clayey silt
42.49	83.1	4.270	-10.10	5.141	11	very stiff fine grained (*)
42.65	89.3	6.930	-9.50	7.764	11	very stiff fine grained (*)
42.81	161.0	8.330	-9.40	5.175	11	very stiff fine grained (*)
42.98	154.5	5.800	-9.40	3.755	11	very stiff fine grained (*)
[illegible]3.14	104.1	4.170	-9.10	4.007	6	sandy silt to clayey silt
[illegible].31	108.7	4.280	-8.50	3.938	11	very stiff fine grained (*)
[illegible].47	119.8	5.080	-8.40	4.241	5	clayey silt to silty clay
43.64	138.0	4.940	-8.40	3.580	6	sandy silt to clayey silt
43.80	124.6	4.980	-8.30	3.997	12	sand to clayey sand (*)
43.96	140.6	5.500	-7.80	3.912	11	very stiff fine grained (*)
44.13	160.7	7.240	-7.50	4.506	11	very stiff fine grained (*)
44.29	203.1	9.370	-7.10	4.614	11	very stiff fine grained (*)
44.46	250.8	11.510	-6.80	4.589	11	very stiff fine grained (*)
44.62	273.5	13.330	-6.50	4.874	11	very stiff fine grained (*)
44.78	250.8	13.330	-7.10	5.315	11	very stiff fine grained (*)
44.95	243.2	11.950	-5.50	4.913	11	very stiff fine grained (*)
45.11	288.4	13.330	-6.70	4.622	11	very stiff fine grained (*)
45.28	288.7	13.330	-6.60	4.617	11	very stiff fine grained (*)
45.44	318.7	13.330	-6.80	4.183	12	sand to clayey sand (*)
45.60	349.5	13.330	-7.50	3.814	12	sand to clayey sand (*)
45.77	375.0	9.670	-8.20	2.579	12	sand to clayey sand (*)
45.93	380.5	10.890	-8.80	2.862	12	sand to clayey sand (*)
46.10	361.6	13.010	-5.80	3.598	12	sand to clayey sand (*)
46.26	367.8	13.330	-6.50	3.624	12	sand to clayey sand (*)
46.42	423.6	13.070	-7.80	3.086	12	sand to clayey sand (*)
46.59	446.1	13.170	-8.70	2.952	12	sand to clayey sand (*)
46.75	440.8	13.330	-9.10	3.024	8	sand to silty sand
46.92	413.5	4.310	-9.20	1.042	8	sand to silty sand
47.08	447.3	7.530	-8.50	1.684	8	sand to silty sand
47.24	456.5	11.470	9.80	2.512	8	sand to silty sand
47.41	501.3	12.800	6.50	2.553	8	sand to silty sand
47.57	488.1	9.980	3.30	2.044	8	sand to silty sand

[illegible]l behavior type and SPT based on data from UBC-1983

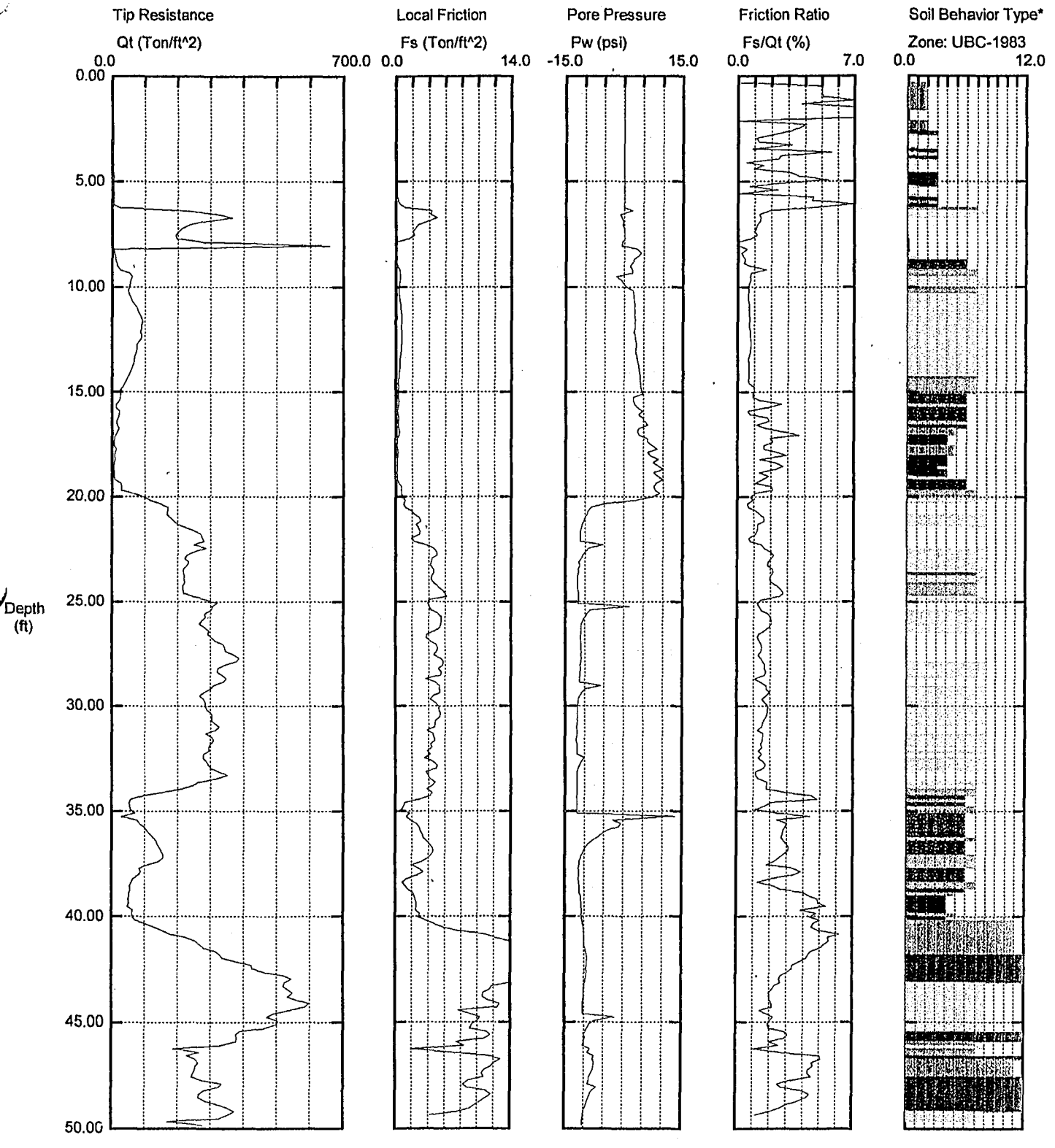
Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
47.74	445.5	12.810	1.70	2.875	12	sand to clayey sand (*)
47.90	436.5	13.330	-0.60	3.054	12	sand to clayey sand (*)
48.06	436.5	12.260	-1.00	2.809	12	sand to clayey sand (*)
[illegible].23	458.9	8.640	-2.30	1.883	8	sand to silty sand
[illegible].39	532.3	10.140	-2.90	1.905	8	sand to silty sand
48.56	544.3	12.130	0.00	2.229	8	sand to silty sand
48.72	608.9	11.840	-1.90	1.945	8	sand to silty sand
48.88	621.9	13.330	-2.30	2.144	0	<out of range>
49.05	614.7	-32768	-3.30	-32768	0	<out of range>
49.21	604.1	-32768	-3.30	-32768	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Precision Sampling Inc.

Operator: Chris
Sounding: Urib11
Cone Used: 465

CPT Date/Time: 08-31-01 08:02
Location: Alameda Point
Job Number: s11-dgs-dp104



Maximum Depth = 50.03 feet

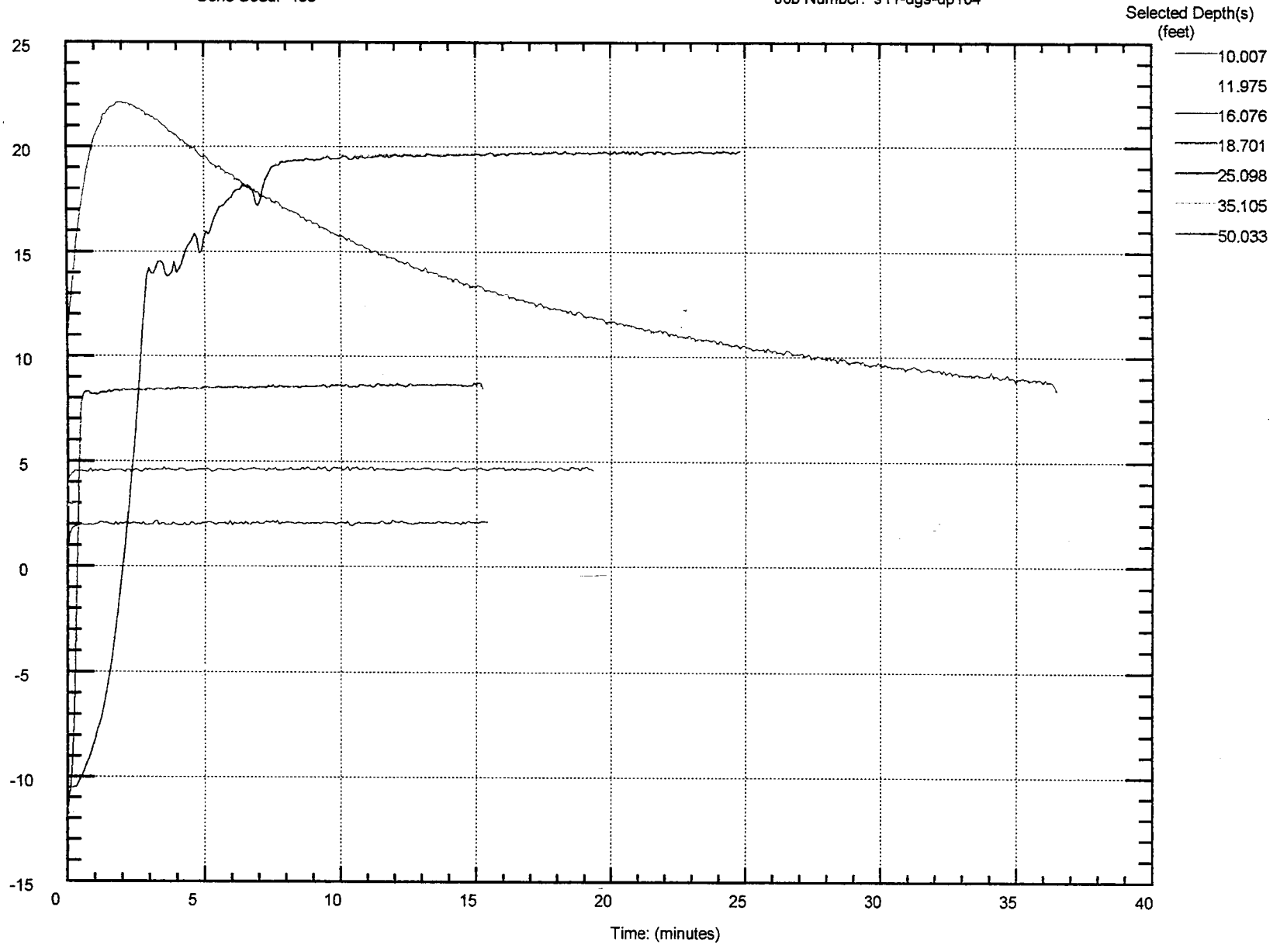
Depth Increment = 0.16 feet

1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

Precision Sampling Inc.

Operator Chris
Sounding: Urib11
Cone Used: 465

CPT Date/Time: 08-31-01 08:02
Location: Alameda Point
Job Number: s11-dgs-dp104



Maximum Pressure = 19.796 psi
Hydrostatic Pressure = 21.714 psi

Data File:Urib11
Operator:Chris
Cone ID:465
Customer:cision Sampling Inc.

08-31-01 08:02
Location:Alameda Point
Job Number:s11-dgs-dp104
Units:English

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
0.16	0.2	0.000	0.00	0.000	0	<out of range>
0.33	0.2	0.000	0.00	0.000	2	organic material
0.49	0.2	0.010	0.00	5.000	2	organic material
0.66	0.2	0.010	0.00	5.000	2	organic material
0.82	0.2	0.010	0.00	5.000	2	organic material
0.98	0.2	0.010	-0.10	5.036	2	organic material
1.15	0.4	0.030	0.00	7.500	2	organic material
1.31	0.8	0.030	0.00	3.750	2	organic material
1.48	0.2	0.040	0.00	20.000	2	organic material
1.64	0.4	0.050	-0.10	12.545	0	<out of range>
1.80	0.1	0.070	-0.20	72.076	0	<out of range>
1.97	0.2	0.030	-0.30	15.331	0	<out of range>
2.13	0.0	0.010	-0.30	-231.482	2	organic material
2.30	0.5	0.020	-0.20	4.023	2	organic material
2.46	1.4	0.050	-0.30	3.582	2	organic material
2.62	1.3	0.040	-0.30	3.087	3	clay
2.79	1.5	0.030	-0.30	2.006	1	sensitive fine grained
2.95	1.9	0.020	-0.30	1.055	1	sensitive fine grained
3.12	2.5	0.030	-0.30	1.202	1	sensitive fine grained
3.28	2.2	0.070	-0.30	3.188	1	sensitive fine grained
3.44	2.3	0.020	-0.30	0.871	3	clay
3.61	0.9	0.050	-0.30	5.582	1	sensitive fine grained
3.77	2.0	0.050	-0.30	2.505	3	clay
3.94	2.1	0.050	-0.30	2.386	1	sensitive fine grained
4.10	2.1	0.010	-0.30	0.477	1	sensitive fine grained
4.27	2.0	0.030	-0.30	1.503	1	sensitive fine grained
[illegible].43	2.2	0.020	-0.30	0.911	1	sensitive fine grained
[illegible]59	2.3	0.070	-0.30	3.049	3	clay
[illegible].76	2.5	0.090	-0.30	3.606	3	clay
4.92	1.5	0.080	-0.30	5.349	3	clay
5.09	1.1	0.030	-0.30	2.738	3	clay
5.25	1.5	0.010	-0.30	0.669	1	sensitive fine grained
5.41	1.7	0.040	-0.30	2.359	1	sensitive fine grained
5.58	2.9	0.000	-0.30	0.000	1	sensitive fine grained
5.74	1.8	0.080	-0.30	4.455	3	clay
5.91	3.9	0.170	-0.30	4.364	2	organic material
6.07	2.8	0.410	-0.30	14.665	3	clay
6.23	22.7	1.040	-0.30	4.582	7	silty sand to sandy silt
6.40	223.6	4.210	2.00	1.883	8	sand to silty sand
6.56	323.7	4.090	-1.30	1.264	8	sand to silty sand
6.73	364.7	4.900	-0.70	1.344	9	sand
6.89	277.2	3.600	-0.40	1.299	9	sand
7.05	233.3	2.580	-0.60	1.106	9	sand
7.22	210.4	2.230	-0.30	1.060	9	sand
7.38	200.0	1.970	-0.30	0.985	9	sand
7.55	190.7	2.140	0.00	1.122	9	sand
7.71	196.1	1.480	0.00	0.755	0	<out of range>
7.87	269.2	-32768	-0.70	-32768	0	<out of range>
8.04	656.2	-32768	-0.90	-32768	0	<out of range>
8.20	1.9	0.010	3.20	0.514	0	<out of range>
8.37	5.3	0.010	4.20	0.190	1	sensitive fine grained
8.53	7.6	0.020	3.40	0.261	1	sensitive fine grained
8.69	9.9	0.040	2.20	0.403	6	sandy silt to clayey silt
8.86	12.2	0.040	2.10	0.327	6	sandy silt to clayey silt

[illegible] behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
9.02	15.3	0.110	1.30	0.718	6	sandy silt to clayey silt
9.19	23.8	0.400	1.90	1.679	7	silty sand to sandy silt
9.35	52.1	0.410	1.90	0.787	7	silty sand to sandy silt
9.51	59.6	0.430	-2.30	0.722	8	sand to silty sand
9.68	55.0	0.410	-1.00	0.746	8	sand to silty sand
9.84	52.7	0.350	-0.40	0.664	8	sand to silty sand
10.01	50.1	0.320	0.30	0.639	7	silty sand to sandy silt
10.17	46.6	0.290	2.10	0.622	7	silty sand to sandy silt
10.33	49.6	0.300	2.20	0.604	8	sand to silty sand
10.50	53.9	0.330	2.30	0.612	8	sand to silty sand
10.66	59.0	0.360	2.30	0.610	8	sand to silty sand
10.83	66.4	0.430	2.50	0.647	8	sand to silty sand
10.99	74.6	0.480	2.40	0.643	8	sand to silty sand
11.15	77.8	0.510	2.50	0.655	8	sand to silty sand
11.32	83.2	0.550	2.40	0.661	8	sand to silty sand
11.48	88.3	0.600	2.50	0.679	8	sand to silty sand
11.65	90.8	0.630	2.60	0.694	8	sand to silty sand
11.81	88.6	0.580	2.70	0.654	8	sand to silty sand
11.98	88.8	0.600	2.70	0.675	8	sand to silty sand
12.14	84.1	0.630	2.30	0.749	8	sand to silty sand
12.30	88.2	0.640	2.60	0.725	8	sand to silty sand
12.47	87.2	0.660	2.70	0.757	8	sand to silty sand
12.63	79.2	0.620	2.90	0.782	8	sand to silty sand
12.80	73.8	0.570	3.00	0.772	8	sand to silty sand
12.96	74.9	0.550	2.80	0.734	8	sand to silty sand
13.12	71.5	0.510	2.80	0.713	8	sand to silty sand
13.29	67.8	0.440	3.00	0.649	8	sand to silty sand
13.45	65.2	0.400	3.20	0.613	8	sand to silty sand
13.62	63.9	0.410	3.40	0.641	8	sand to silty sand
13.78	60.8	0.390	3.50	0.642	8	sand to silty sand
13.94	56.0	0.350	3.60	0.626	8	sand to silty sand
14.11	51.3	0.320	3.80	0.624	8	sand to silty sand
14.27	46.6	0.290	3.90	0.623	7	silty sand to sandy silt
14.44	42.6	0.260	3.90	0.611	7	silty sand to sandy silt
14.60	36.9	0.250	4.10	0.678	7	silty sand to sandy silt
14.76	31.2	0.300	4.20	0.963	7	silty sand to sandy silt
14.93	23.6	0.240	4.40	1.019	7	silty sand to sandy silt
15.09	25.0	0.220	4.60	0.881	6	sandy silt to clayey silt
15.26	24.9	0.220	2.20	0.882	6	sandy silt to clayey silt
15.42	22.1	0.290	2.20	1.310	6	sandy silt to clayey silt
15.58	11.9	0.310	2.50	2.597	5	clayey silt to silty clay
15.75	9.9	0.180	3.30	1.809	6	sandy silt to clayey silt
15.91	20.9	0.120	4.60	0.575	6	sandy silt to clayey silt
16.08	20.8	0.150	3.50	0.723	6	sandy silt to clayey silt
16.24	17.5	0.310	4.60	1.775	6	sandy silt to clayey silt
16.40	11.9	0.220	5.10	1.853	5	clayey silt to silty clay
16.57	13.9	0.150	6.00	1.080	6	sandy silt to clayey silt
16.73	19.5	0.320	3.60	1.645	5	clayey silt to silty clay
16.90	13.9	0.350	3.10	2.510	5	clayey silt to silty clay
17.06	8.6	0.310	3.80	3.624	4	silty clay to clay
17.22	7.3	0.140	5.70	1.923	4	silty clay to clay
17.39	5.3	0.110	6.00	2.081	4	silty clay to clay
17.55	5.2	0.080	7.20	1.537	5	clayey silt to silty clay
17.72	12.6	0.200	8.40	1.585	5	clayey silt to silty clay
17.88	9.4	0.220	5.90	2.344	5	clayey silt to silty clay
18.04	6.6	0.190	6.70	2.880	4	silty clay to clay
18.21	9.1	0.120	8.70	1.315	4	silty clay to clay
18.37	5.9	0.130	7.30	2.201	4	silty clay to clay
18.54	4.8	0.130	8.80	2.693	3	clay

l behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
18.70	4.9	0.110	9.90	2.226	4	silty clay to clay
18.86	5.4	0.070	7.50	1.294	4	silty clay to clay
19.03	5.4	0.100	8.60	1.844	1	sensitive fine grained
19.19	7.5	0.110	9.80	1.459	6	sandy silt to clayey silt
19.36	25.8	0.270	8.10	1.046	6	sandy silt to clayey silt
19.52	27.5	0.550	7.50	1.999	6	sandy silt to clayey silt
19.69	26.6	0.550	7.80	2.067	7	silty sand to sandy silt
19.85	59.3	0.600	8.90	1.011	7	silty sand to sandy silt
20.01	96.9	0.730	7.10	0.753	8	sand to silty sand
20.18	116.0	1.070	2.90	0.922	8	sand to silty sand
20.34	150.2	0.860	-5.30	0.572	9	sand
20.51	170.2	1.130	-8.60	0.664	9	sand
20.67	169.3	1.850	-9.30	1.093	9	sand
20.83	165.8	2.250	-9.60	1.357	8	sand to silty sand
21.00	175.8	2.770	-10.20	1.576	8	sand to silty sand
21.16	187.6	2.980	-10.50	1.588	8	sand to silty sand
21.33	199.3	2.410	-10.90	1.209	8	sand to silty sand
21.49	222.9	2.680	-11.10	1.202	9	sand
21.65	252.4	2.880	-11.40	1.141	9	sand
21.82	269.4	2.790	-11.50	1.036	9	sand
21.98	272.6	1.830	-11.50	0.671	9	sand
22.15	278.8	2.120	-11.50	0.760	9	sand
22.31	247.6	3.560	-5.60	1.438	9	sand
22.47	284.6	4.450	-9.20	1.564	8	sand to silty sand
22.64	248.8	4.840	-10.10	1.946	8	sand to silty sand
22.80	227.3	4.900	-10.80	2.155	8	sand to silty sand
22.97	220.4	4.370	-11.10	1.982	8	sand to silty sand
23.13	232.7	4.240	-11.80	1.822	8	sand to silty sand
23.29	227.0	4.120	-11.40	1.815	8	sand to silty sand
23.46	216.3	4.530	-11.90	2.094	8	sand to silty sand
23.62	216.7	4.600	-11.80	2.122	7	silty sand to sandy silt
23.79	219.2	4.300	-12.10	1.961	8	sand to silty sand
23.95	217.0	4.160	-12.10	1.917	8	sand to silty sand
24.11	220.4	4.510	-12.10	2.046	7	silty sand to sandy silt
24.28	213.7	5.050	-12.10	2.363	7	silty sand to sandy silt
24.44	214.5	5.500	-12.00	2.564	7	silty sand to sandy silt
24.61	215.3	5.870	-11.80	2.726	7	silty sand to sandy silt
24.77	245.1	6.130	-11.80	2.501	8	sand to silty sand
24.93	287.9	3.920	-11.80	1.361	8	sand to silty sand
25.10	318.9	3.780	-12.00	1.185	9	sand
25.26	303.5	3.940	1.30	1.298	9	sand
25.43	300.8	4.180	-8.80	1.390	8	sand to silty sand
25.59	281.0	5.030	-9.60	1.790	8	sand to silty sand
25.75	283.6	5.480	-10.20	1.933	8	sand to silty sand
25.92	273.1	5.530	-10.60	2.025	8	sand to silty sand
26.08	264.7	5.410	-11.10	2.044	8	sand to silty sand
26.25	281.0	5.340	-11.10	1.900	8	sand to silty sand
26.41	294.7	4.720	-11.10	1.601	8	sand to silty sand
26.57	290.1	3.730	-11.20	1.286	9	sand
26.74	301.1	3.600	-11.30	1.195	9	sand
26.90	313.1	4.140	-11.20	1.322	9	sand
27.07	336.6	4.810	-11.20	1.429	9	sand
27.23	342.3	5.040	-11.20	1.472	9	sand
27.40	343.9	4.840	-11.10	1.407	9	sand
27.56	368.6	4.520	-11.20	1.226	9	sand
27.72	384.1	5.360	-11.10	1.395	9	sand
27.89	376.8	5.740	-11.20	1.523	8	sand to silty sand
28.05	341.5	5.620	-11.40	1.646	8	sand to silty sand
28.22	320.3	5.110	-11.30	1.595	8	sand to silty sand

il behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
28.38	318.0	5.450	-11.40	1.714	8	sand to silty sand
28.54	334.2	5.410	-11.40	1.619	8	sand to silty sand
28.71	347.2	3.630	-11.40	1.045	9	sand
[illegible]87	337.3	4.750	-11.50	1.408	9	sand
[illegible].04	307.6	5.340	-5.90	1.736	8	sand to silty sand
29.20	299.4	5.270	-9.90	1.760	8	sand to silty sand
29.36	278.7	5.400	-10.80	1.937	8	sand to silty sand
29.53	265.9	4.550	-11.40	1.711	8	sand to silty sand
29.69	278.1	4.140	-11.80	1.489	8	sand to silty sand
29.86	283.4	4.810	-11.80	1.697	8	sand to silty sand
30.02	281.6	5.220	-12.10	1.854	8	sand to silty sand
30.18	287.7	5.230	-12.10	1.818	8	sand to silty sand
30.35	300.0	5.390	-12.10	1.797	8	sand to silty sand
30.51	303.6	5.320	-12.10	1.752	8	sand to silty sand
30.68	300.0	4.810	-12.10	1.603	8	sand to silty sand
30.84	310.2	4.720	-12.10	1.521	8	sand to silty sand
31.00	324.1	4.700	-12.30	1.450	9	sand
31.17	313.7	3.750	-12.20	1.195	9	sand
31.33	283.8	4.410	-12.20	1.554	8	sand to silty sand
31.50	303.0	4.670	-12.20	1.541	8	sand to silty sand
31.66	309.2	4.770	-12.30	1.543	8	sand to silty sand
31.82	298.4	4.190	-12.10	1.404	8	sand to silty sand
31.99	293.1	4.410	-12.10	1.504	9	sand
32.15	294.7	3.780	-12.10	1.283	8	sand to silty sand
32.32	277.5	4.150	-12.10	1.495	9	sand
32.48	275.4	3.440	-10.20	1.249	8	sand to silty sand
32.64	286.7	4.400	-10.90	1.534	8	sand to silty sand
32.81	293.4	5.050	-11.40	1.721	8	sand to silty sand
32.97	301.8	4.790	-11.80	1.587	8	sand to silty sand
33.14	323.7	3.610	-12.00	1.115	9	sand
33.30	350.5	3.870	-12.00	1.104	9	sand
[illegible]46	317.7	4.060	-12.10	1.278	9	sand
[illegible]63	261.8	4.730	-12.10	1.807	8	sand to silty sand
[illegible].79	244.9	4.370	-12.10	1.784	8	sand to silty sand
33.96	213.7	3.710	-12.10	1.736	7	silty sand to sandy silt
34.12	153.4	4.350	-12.10	2.835	7	silty sand to sandy silt
34.28	94.0	4.180	-12.10	4.446	6	sandy silt to clayey silt
34.45	57.7	2.780	-12.10	4.816	5	clayey silt to silty clay
34.61	52.0	1.070	-12.10	2.057	6	sandy silt to clayey silt
34.78	53.8	0.900	-12.10	1.672	7	silty sand to sandy silt
34.94	56.4	0.620	-12.10	1.099	7	silty sand to sandy silt
35.10	70.2	1.670	-12.00	2.378	6	sandy silt to clayey silt
35.27	28.4	1.240	13.20	4.368	6	sandy silt to clayey silt
35.43	75.8	1.790	-2.70	2.363	6	sandy silt to clayey silt
35.60	83.1	2.470	-0.80	2.973	6	sandy silt to clayey silt
35.76	97.8	2.820	-1.40	2.884	6	sandy silt to clayey silt
35.93	105.8	2.900	-4.30	2.740	6	sandy silt to clayey silt
36.09	114.5	3.130	-5.70	2.733	6	sandy silt to clayey silt
36.25	124.7	3.280	-6.90	2.630	7	silty sand to sandy silt
36.42	132.6	3.680	-8.20	2.776	6	sandy silt to clayey silt
36.58	136.3	4.020	-9.20	2.950	6	sandy silt to clayey silt
36.75	142.5	4.390	-9.90	3.082	6	sandy silt to clayey silt
36.91	148.4	4.490	-10.50	3.025	6	sandy silt to clayey silt
37.07	155.8	4.300	-10.80	2.759	7	silty sand to sandy silt
37.24	156.2	3.920	-11.10	2.509	7	silty sand to sandy silt
37.40	139.4	3.130	-11.50	2.245	7	silty sand to sandy silt
37.57	108.3	1.940	-11.50	1.791	7	silty sand to sandy silt
37.73	82.1	2.750	-11.70	3.348	6	sandy silt to clayey silt
37.89	86.8	3.330	-11.60	3.835	6	sandy silt to clayey silt

[illegible] behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
38.06	79.2	2.600	-11.60	3.281	6	sandy silt to clayey silt
38.22	65.0	1.320	-11.70	2.030	6	sandy silt to clayey silt
38.39	59.1	0.750	-11.60	1.268	7	silty sand to sandy silt
.55	53.3	1.150	-11.50	2.156	7	silty sand to sandy silt
.71	55.8	1.440	-11.50	2.579	6	sandy silt to clayey silt
38.88	52.1	2.070	-11.50	3.971	5	clayey silt to silty clay
39.04	51.4	2.230	-11.10	4.335	4	silty clay to clay
39.21	48.2	2.340	-11.10	4.851	4	silty clay to clay
39.37	51.2	2.490	-11.00	4.859	4	silty clay to clay
39.53	46.4	2.490	-10.90	5.361	4	silty clay to clay
39.70	62.6	2.370	-10.80	3.783	4	silty clay to clay
39.86	61.1	2.900	-10.80	4.743	5	clayey silt to silty clay
40.03	63.4	2.770	-10.80	4.366	4	silty clay to clay
40.19	72.2	3.600	-10.60	4.983	11	very stiff fine grained (*)
40.35	99.6	4.590	-10.50	4.606	11	very stiff fine grained (*)
40.52	129.5	5.780	-10.40	4.465	11	very stiff fine grained (*)
40.68	151.7	7.430	-10.20	4.899	11	very stiff fine grained (*)
40.85	175.2	10.830	-10.20	6.183	11	very stiff fine grained (*)
41.01	222.6	12.140	-10.10	5.455	11	very stiff fine grained (*)
41.17	252.4	13.910	-10.20	5.512	11	very stiff fine grained (*)
41.34	266.1	13.910	-10.20	5.228	11	very stiff fine grained (*)
41.50	278.5	13.910	-9.80	4.995	11	very stiff fine grained (*)
41.67	312.9	13.910	-9.70	4.446	11	very stiff fine grained (*)
41.83	325.4	13.910	-9.50	4.275	12	sand to clayey sand (*)
41.99	334.7	13.910	-9.40	4.156	12	sand to clayey sand (*)
42.16	374.0	13.910	-9.50	3.720	12	sand to clayey sand (*)
42.32	422.4	13.910	-9.50	3.293	12	sand to clayey sand (*)
42.49	423.9	13.910	-9.70	3.282	12	sand to clayey sand (*)
42.65	463.0	13.910	-9.50	3.005	12	sand to clayey sand (*)
42.81	521.7	13.910	-9.50	2.666	12	sand to clayey sand (*)
42.98	544.2	13.910	-9.70	2.556	12	sand to clayey sand (*)
.14	524.0	13.850	-9.80	2.643	8	sand to silty sand
.31	517.6	11.780	-10.10	2.276	8	sand to silty sand
.47	535.3	11.410	-10.20	2.132	8	sand to silty sand
43.64	547.4	10.670	-10.20	1.949	8	sand to silty sand
43.80	531.8	10.610	-10.20	1.995	8	sand to silty sand
43.96	558.0	11.200	-10.30	2.007	8	sand to silty sand
44.13	596.8	12.640	-10.50	2.118	8	sand to silty sand
44.29	583.1	12.380	-10.50	2.123	8	sand to silty sand
44.46	539.3	7.600	-10.50	1.409	8	sand to silty sand
44.62	487.6	9.110	-10.50	1.868	8	sand to silty sand
44.78	468.8	10.330	-2.20	2.204	8	sand to silty sand
44.95	503.8	9.890	-7.50	1.963	8	sand to silty sand
45.11	498.2	9.250	-8.90	1.857	8	sand to silty sand
45.28	459.7	8.990	-9.30	1.956	8	sand to silty sand
45.44	388.1	11.090	-9.80	2.858	12	sand to clayey sand (*)
45.60	376.5	11.610	-9.90	3.084	12	sand to clayey sand (*)
45.77	378.3	10.880	-9.80	2.876	12	sand to clayey sand (*)
45.93	376.5	7.390	-10.10	1.963	7	silty sand to sandy silt
46.10	329.3	8.400	-10.50	2.550	8	sand to silty sand
46.26	185.5	1.930	-8.50	1.041	7	silty sand to sandy silt
46.42	265.4	7.120	-9.20	2.683	7	silty sand to sandy silt
46.59	228.0	11.410	-7.50	5.005	12	sand to clayey sand (*)
46.75	252.5	12.800	-7.90	5.070	11	very stiff fine grained (*)
46.92	263.4	11.940	-7.50	4.533	11	very stiff fine grained (*)
47.08	253.2	11.650	-7.60	4.601	11	very stiff fine grained (*)
47.24	252.5	10.820	-7.90	4.285	11	very stiff fine grained (*)
47.41	245.7	10.450	-8.30	4.253	11	very stiff fine grained (*)
47.57	239.6	10.780	-8.80	4.500	12	sand to clayey sand (*)

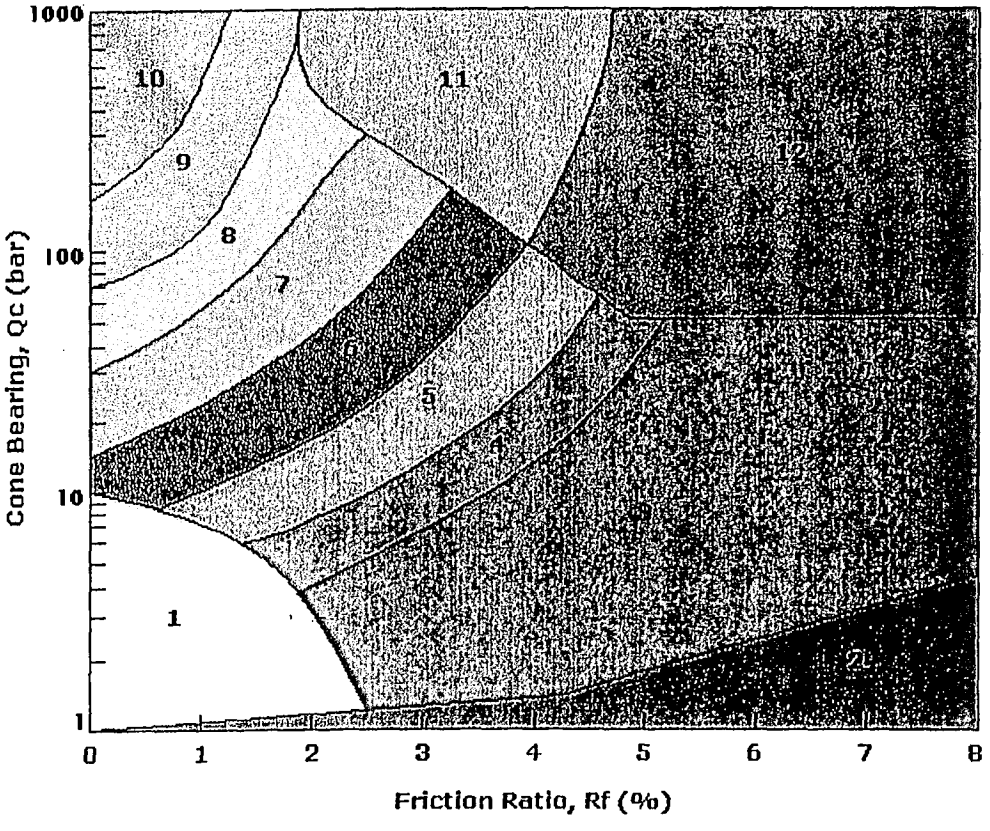
behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt (TSF)	Fs (TSF)	Pw (PSI)	Fs/Qt (%)	Zone	Soil Behavior Type UBC-1983
47.74	271.5	8.880	-8.90	3.271	12	sand to clayey sand (*)
47.90	332.6	8.200	-9.20	2.466	12	sand to clayey sand (*)
48.06	321.8	8.670	-6.90	2.694	12	sand to clayey sand (*)
23	280.5	11.000	-8.10	3.922	12	sand to clayey sand (*)
.39	265.2	11.670	-8.50	4.401	12	sand to clayey sand (*)
48.56	263.6	11.090	-8.80	4.208	12	sand to clayey sand (*)
48.72	284.4	10.360	-9.20	3.643	12	sand to clayey sand (*)
48.88	319.5	9.730	-9.50	3.046	12	sand to clayey sand (*)
49.05	351.2	9.030	-9.80	2.571	12	sand to clayey sand (*)
49.21	372.6	7.500	-10.20	2.013	8	sand to silty sand
49.38	353.8	4.170	-10.40	1.179	8	sand to silty sand
49.54	326.2	5.240	-10.50	1.606	8	sand to silty sand
49.70	168.7	7.340	-10.60	4.350	0	<out of range>
49.87	275.5	-32768	-10.50	-32768	0	<out of range>
50.03	317.7	-32768	-10.50	-32768	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

PRECISION

Simplified Soil Behavior Type Classification
for Standard Electronic Cone Penetrometer (Robertson 1986)



Zone	Soil Behavior Type
1	Sensitive Fine Gained
2	Organic Material
3	CLAY
4	Silty CLAY to CLAY
5	Clayey SILT to Silty CLAY
6	Sandy SILT to Clayey SILT
7	Silty SAND to Sandy SILT
8	SAND to Silty SAND
9	SAND
10	Gravelly SAND to SAND
11	Very Stiff Fine Grained (*)
12	SAND to Clayey SAND (*)

(*) Overconsolidated or Cemented

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PRECISION

References

Robertson, P.K. and Campanella, R.G., 1989. Guidelines for geotechnical design using the cone penetrometer test and CPT with pore pressure measurement. Hogentogler & Company, Inc., Columbia, Maryland.

Robertson, P.K. and Campanella, R.G., 1990. Guidelines for Use, Interpretation and Application of the CPT and CPTU. UBC, Soil Mechanics Series No. 105, Civil Engineering Department, Vancouver, B.C.

Robertson et al, 1999. An approach to evaluation of field CPTU dissipation data in overconsolidated fine-grained soils. Canadian Geotechnical Journal, v. 36: 369-381.

TABLE K-1

SUMMARY OF GROUNDWATER PARAMETERS FOR SAMPLES COLLECTED FROM CONE PENETROMETER BORINGS
SUPPLEMENTAL REMEDIAL INVESTIGATION DATA GAP SAMPLING FOR OU-1 AND OU-2
ALAMEDA POINT, ALAMEDA CALIFORNIA

Boring Identification	Site	Date Sampled	Sample Identification	Sample Depth (feet bgs)	Temperature (°C)	Conductivity (µS/cm)	Disolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH	Dissolved Iron[a] (mg/L)	Turbidity (NTU)
S11-DGS-DP101	11	9/5/2001	Not Submitted	10	18.55	7,154	19.72	-76.6	7.34	0.06	335
S11-DGS-DP101	11	9/5/2001	Not Submitted	25	19.41	22,893	15.52	-82.3	6.48	1.59	547.1
S11-DGS-DP101	11	9/5/2001	Not Submitted	50	20.30	59,395	2.46	-267.3	6.72	0.41[b]	1086.6
S11-DGS-DP103	11	9/5/2001	Not Submitted	10	20.86	4,432	9.22	149.4	8.17	0.02	171
S11-DGS-DP103	11	9/5/2001	Not Submitted	25	22.53	20,515	16.32	-93.6	6.89	2.17	693.7
S11-DGS-DP103	11	9/5/2001	Not Submitted	50	23.55	64,569	3.42	95.0	6.35	2.78	552.9
S11-DGS-DP109	11	9/4/2001	Not Submitted	10	20.17	6,537	3.72	228.5	8.62	0.40	714.2
S11-DGS-DP109	11	9/4/2001	Not Submitted	25	20.06	6,530	5.97	63.9	8.98	0.06	1376
S11-DGS-DP109	11	9/4/2001	Not Submitted	50	20.26	30,249	8.80	-85.7	6.87	1.7[b]	705.8
S21-DGS-DP104	21	9/4/2001	Not Submitted	10	22.71	495	1.15	194.8	6.88	3.26	1389.9
S21-DGS-DP104	21	9/4/2001	Not Submitted	25	21.62	46,715	7.07	-67.4	6.21	0.48	813.1
S21-DGS-DP104	21	9/4/2001	Not Submitted	50	22.49	54,826	3.71	-100.9	6.44	0.51[b]	289.9

Notes:

bgs = Below ground surface
°C = Degrees Celsius
mg/L = Milligram per liter
µS/cm = Micro-siemens per centimeter
mV = Millivolt
NTU = Nephelometric turbidity unit
a = Filtered through 0.45 micron filter
b = 5 to 1 dilution

APPENDIX L
SURVEYOR DATA
(4 Pages)

SURVEY DATA FOR ALAMEDA DATA GAP SAMPLING
BY PLS SURVEYS, INC.

DESCRIPTION	CADD POINT	NORTHING NAD 83	EASTING NAD 83	NORTHING NAD 27 (converted)	EASTING NAD 27 (converted)	GROUND/VAULT ELEVATION	CASING ELEVATION
S10-DGS-DP03	23	2112634.17	6039739.93	472226.76	1478373.09	8.77	
S21-DGS-DP14	31	2111249.37	6042476.76	470842.00	1481109.97	10.49	
S09-DGS-DP04	41	2109513.05	6042704.51	469105.67	1481337.75	10.90	
S11-DGS-HA03	45	2110991.34	6042351.33	470583.97	1480984.54	9.79	
S04-DPS-DP19	61	2110854.43	6043276.88	470447.07	1481910.11	13.61	
S04-DGS-SG19	65	2110656.57	6042956.03	470249.20	1481489.25	8.24	
S04-DGS-SG20	66	2110654.22	6042955.30	470246.86	1481588.53	8.17	
S03-DGS-DP31	74	2112142.14	6043290.62	471734.79	1481923.83	11.62	
CAA9A-DGS-SG01	84	2108695.07	6042577.19	468287.69	1481210.43	9.17	
S05-DGS-DP05	101	2113128.53	6040298.50	472721.13	1478931.67	10.29	
S05-DGS-DP-36	102	2113432.43	6039875.09	473025.03	1478508.25	10.08	
S05-DGS-DP21	103	2113440.71	6039868.70	473033.30	1478501.86	10.08	
S05-DGS-DP-37	104	2113361.09	6039783.95	472953.68	1478417.11	10.21	
S05-DGS-SG-14	105	2113394.19	6039637.73	472986.78	1478270.89	9.82	
S05-DGS-SG-15	106	2113393.78	6039627.65	472986.37	1478260.81	9.72	
S05-DGS-SG13	107	2113394.88	6039617.67	472987.47	1478250.82	9.73	
S05-DGS-DP22	108	2113470.85	6039659.13	473063.44	1478292.28	9.68	
S05-DGS-DP28	109	2113549.24	6040045.11	473141.84	1478678.27	10.00	
S05-DGS-DP34	111	2113282.61	6039680.56	472875.20	1478313.72	9.87	
S05-DGS-DP23	112	2113259.47	6039704.51	472852.06	1478337.67	9.97	
S05-DGS-DP45	113	2113532.72	6039552.29	473125.31	1478185.44	9.96	
S05-DGS-DP35	114	2113513.48	6039627.51	473106.07	1478260.66	9.66	
S05-DGS-DP41	115	2113549.03	6039592.91	473141.62	1478226.06	9.83	
S05-DGS-DP43	116	2113582.59	6039556.08	473175.18	1478189.23	9.94	
S05-DGS-DP44	117	2113632.58	6039560.22	473225.17	1478193.37	9.97	
S05-DGS-DP20	118	2113029.92	6039864.03	472622.51	1478497.19	10.30	
S05-DGS-DP14	119	2113036.36	6039832.10	472628.95	1478465.26	10.25	
S05-DGS-DP13	120	2113056.03	6039786.97	472648.62	1478420.13	10.09	
S05-DGS-DP16	121	2113106.15	6039792.31	472698.74	1478425.47	10.07	
S05-DGS-SG17	122	2113117.51	6039712.87	472710.10	1478346.03	10.00	
S05-DGS-SG18	123	2113118.41	6039703.18	472711.00	1478336.34	10.02	
S05-DGS-SG16	124	2113119.51	6039693.35	472712.10	1478326.51	10.06	
S05-DGS-DP15	125	2113045.18	6039736.80	472637.77	1478369.96	10.09	
S05-DGS-DP24	126	2113104.24	6039569.09	472696.83	1478202.25	9.94	
S05-DGS-DP38	127	2113108.94	6039549.29	472701.53	1478182.45	9.90	
S05-DGS-DP42	128	2113112.09	6039529.14	472704.68	1478162.30	9.99	
S05-DGS-DP31	129	2112973.56	6039881.82	472566.15	1478514.98	10.22	
S05-DGS-DP17	130	2112973.31	6039862.04	472565.90	1478495.20	7.31	
S05-DGS-DP18	131	2112972.14	6039834.17	472564.73	1478467.33	5.83	
S05-DGS-DP19	132	2112986.26	6039807.23	472578.85	1478440.39	10.31	
S05-DGS-DP32	135	2112946.66	6039859.59	472539.25	1478492.75	10.37	
S05-DGS-SG19	136	2112966.38	6039973.77	472558.97	1478606.93	10.17	
S05-DGS-SG21	137	2112965.97	6039983.70	472558.56	1478616.86	10.14	
S05-DGS-SG20	138	2112966.24	6039990.74	472558.83	1478623.90	10.07	
S05-DGS-DP06	139	2113154.12	6040279.64	472746.72	1478912.81	9.92	
S05-DGS-DP40	140	2113039.36	6040223.11	472631.96	1478856.28	10.09	
S05-DGS-DP11	141	2113007.41	6040264.61	472600.01	1478897.78	10.07	
S05-DGS-DP12	142	2112921.97	6040259.49	472514.57	1478892.66	9.65	
S05-DGS-SG01	143	2113332.07	6040163.25	472924.67	1478796.41	9.83	

SURVEY DATA FOR ALAMEDA DATA GAP SAMPLING
BY PLS SURVEYS, INC.

DESCRIPTION	CADD POINT	NORTHING NAD 83	EASTING NAD 83	NORTHING NAD 27 (converted)	EASTING NAD 27 (converted)	GROUND/VAULT ELEVATION	CASING ELEVATION
S05-DGS-SG03	144	2113321.84	6040162.81	472914.44	1478795.97	9.83	
S05-DGS-SG02	145	2113310.81	6040162.22	472903.41	1478795.38	9.85	
S10-DGS-DP02	146	2112572.66	6039736.09	472165.25	1478369.26	8.89	
S10-DGS-DP01	147	2112519.32	6039731.06	472111.91	1478364.23	8.95	
S21-DGS-DP106	148	2111246.85	6042440.40	470839.48	1481073.61	10.46	
S21-DGS-DP17	149	2111258.40	6042499.63	470851.03	1481132.84	10.49	
S21-DGS-DP19	150	2111267.43	6042523.24	470860.06	1481156.45	10.48	
S21-DGS-DP04	152	2111214.15	6042368.73	470806.78	1481001.94	10.44	
S21-DGS-DP03	153	2111245.13	6042353.52	470837.76	1480986.73	10.47	
S21-DGS-DP18	154	2111245.96	6042342.23	470838.59	1480975.44	10.47	
S21-DGS-DP16	155	2111246.85	6042331.91	470839.48	1480965.12	10.51	
S21-DGS-DP12	156	2111204.87	6042416.02	470797.50	1481049.23	10.43	
S11-DGS-DP103	157	2111130.01	6042624.30	470722.64	1481257.52	9.59	
S04-DGS-DP46	158	2111264.17	6042675.45	470856.80	1481308.67	10.38	
S16-DGS-DP27	159	2108453.85	6043688.02	468046.49	1482321.28	9.35	
S16-DGS-DP26	160	2108458.70	6043664.66	468051.34	1482297.92	9.02	
S09-DGS-SG02	163	2109510.67	6042733.09	469103.29	1481366.33	11.12	
S09-DGS-SG03	164	2109500.83	6042732.36	469093.45	1481365.60	11.09	
S09-DGS-SG01	165	2109490.42	6042731.26	469083.04	1481364.50	11.18	
S09-DGS-DP05	166	2109410.90	6042695.66	469003.52	1481328.90	11.26	
S21-DGS-DP06	169	2111629.91	6042518.80	471222.54	1481152.01	8.88	
S21-DGS-DP13	170	2111593.86	6042510.65	471186.49	1481143.86	9.29	
S04-DGS-DP42	173	2110714.76	6043416.84	470307.40	1482050.07	13.72	
S04-DGS-DP34	174	2110638.12	6043360.48	470230.76	1481993.71	13.67	
S04-DGS-DP43	175	2110624.63	6043369.35	470217.27	1482002.58	13.66	
S04-DGS-DP39	176	2110614.36	6043375.91	470207.00	1482009.14	13.66	
S04-DGS-DP28	177	2110677.90	6043328.21	470270.54	1481961.44	13.67	
S04-DGS-DP13	178	2110734.28	6043301.39	470326.92	1481934.62	13.69	
S04-DGS-DP17	179	2110772.13	6043359.88	470364.77	1481993.11	13.73	
S04-DGS-DP12	180	2110758.47	6043365.16	470351.11	1481998.39	13.73	
S04-DGS-DP27	181	2110742.85	6043389.54	470335.49	1482022.77	13.76	
S04-DGS-DP38	182	2110722.03	6043407.80	470314.67	1482041.03	13.72	
S04-DGS-DP32	183	2110777.61	6043429.12	470370.26	1482062.35	13.70	
S04-DGS-DP37	184	2110795.49	6043417.54	470388.14	1482050.77	13.72	
S04-DGS-DP26	185	2110809.68	6043394.23	470402.32	1482027.46	13.68	
S04-DGS-DP11	186	2110851.44	6043360.84	470444.08	1481994.07	13.73	
S04-DGS-DP18	187	2110868.18	6043350.80	470460.82	1481984.03	13.72	
S04-DGS-DP10	188	2110922.69	6043563.88	470515.34	1482197.11	13.71	
S04-DGS-DP31	189	2110915.74	6043533.05	470508.39	1482166.28	13.68	
S04-DGS-DP40	190	2110905.38	6043521.03	470498.03	1482154.26	13.70	
S04-DGS-DP25	191	2110896.67	6043503.29	470489.32	1482136.52	13.71	
S04-DPS-DP16	192	2111035.63	6043402.19	470628.28	1482035.42	13.61	
S04-DPS-DP06	193	2110757.97	6043278.67	470350.61	1481911.90	13.61	
S04-DPS-DP20	194	2110803.65	6043302.46	470396.29	1481935.69	13.63	
S04-DGS-SG04	195	2110783.27	6043219.36	470375.91	1481852.59	13.66	
S04-DGS-SG06	196	2110782.24	6043230.69	470374.88	1481863.92	13.67	
S04-DGS-SG05	197	2110781.50	6043239.61	470374.14	1481872.84	13.69	
S04-DGS-DP15	198	2110606.47	6043129.39	470199.11	1481762.62	10.44	
SW-1	199	2111249.05	6043199.14	470841.69	1481832.36	8.59	8.34

SURVEY DATA FOR ALAMEDA DATA GAP SAMPLING
BY PLS SURVEYS, INC.

DESCRIPTION	CADD POINT	NORTHING NAD 83	EASTING NAD 83	NORTHING NAD 27 (converted)	EASTING NAD 27 (converted)	GROUND/VAULT ELEVATION	CASING ELEVATION
GW-1	200	2111218.63	6043240.52	470811.27	1481873.74	8.88	8.55
MW-10	202	2111167.65	6043311.63	470760.30	1481944.85	7.91	7.57
S03-DGS-DP05	203	2111466.61	6043567.78	471059.26	1482201.00	7.58	
S04-DGS-DP29	204	2110597.12	6043192.57	470189.76	1481825.80	10.05	
S11-DGS-DP102	205	2111149.20	6042355.63	470741.83	1480988.84	10.08	
S21-DGS-DP103	206	2111365.20	6042653.09	470957.83	1481286.30	8.55	
S03-DGS-DP34	207	2111996.62	6043378.86	471589.27	1482012.08	9.66	
MW2A-AE	208	2113347.10	6040163.78	472939.70	1478796.94	10.05	9.77
FW1-1	209	2113352.19	6040169.18	472944.79	1478802.34	9.92	9.61
RW-1	210	2113358.75	6040159.80	472951.35	1478792.96	10.12	9.77
RW*1	211	2113363.32	6040158.61	472955.92	1478791.77	10.12	9.69
MLS-1 (Vault contains 4 casings)	212	2113362.66	6040163.46	472955.26	1478796.62	10.04	
MLS-1 (Casing 1)							9.62
MLS-1 (Casing 2)							9.70
MLS-1 (Casing 3)							9.67
MLS-1 (Casing 4)							9.67
IW-1	213	2113362.29	6040170.10	472954.89	1478803.26	9.95	9.57
MRW-3	214	2113357.29	6040179.31	472949.89	1478812.47	9.82	8.98
RW-3	215	2113361.38	6040180.83	472953.98	1478813.99	9.77	9.35
RW-4	216	2113371.26	6040181.90	472963.86	1478815.06	9.80	9.26
MLS-2 (Vault contains 4 casings)	217	2113371.34	6040176.29	472963.94	1478809.45	9.90	
MLS-2 (Casing 1)							9.10
MLS-2 (Casing 2)							9.21
MLS-2 (Casing 3)							9.13
MLS-2 (Casing 4)							9.17
IW-2	218	2113372.33	6040171.29	472964.93	1478804.45	9.95	9.27
RW-2	219	2113373.11	6040159.56	472965.71	1478792.72	10.12	9.61
MRW-2	220	2113376.58	6040161.56	472969.18	1478794.72	10.10	9.63
FWI-2	221	2113382.00	6040171.73	472974.60	1478804.89	9.92	9.28
MRW-4	222	2113375.10	6040180.60	472967.70	1478813.76	9.78	9.32
MW10A	223	2111171.57	6043311.82	470764.22	1481945.04	7.93	7.53
MW 11	224	2111199.31	6043256.75	470791.95	1481889.97	9.16	8.84
MW 7S	225	2111197.49	6043256.85	470790.13	1481890.07	9.16	8.86
MW 8S	226	2111198.45	6043257.82	470791.09	1481891.04	9.14	8.85
MW 9S	227	2111199.51	6043258.71	470792.15	1481891.93	9.12	8.82
MW 9	228	2111198.82	6043259.90	470791.46	1481893.12	9.08	8.78
MW 8	229	2111197.75	6043258.81	470790.39	1481892.03	9.08	8.74
MW 7	230	2111196.60	6043257.97	470789.24	1481891.19	9.08	8.77
MW 6S	231	2111196.31	6043262.66	470788.95	1481895.88	9.01	8.66
MW 5S	232	2111195.14	6043261.70	470787.78	1481894.92	9.02	8.69
MW 4S	233	2111194.21	6043260.65	470786.85	1481893.87	9.03	8.67
MW 4	234	2111193.24	6043261.79	470788.88	1481895.01	9.05	8.70
MW 5	235	2111194.39	6043262.83	470787.03	1481896.05	9.04	8.77
MW 6	236	2111195.38	6043263.67	470788.02	1481896.89	9.03	8.73
MW 3S	237	2111193.24	6043266.46	470785.88	1481899.68	8.87	8.51
MW 2S	238	2111192.18	6043265.54	470784.82	1481898.76	8.90	8.53
MW 1S	239	2111191.12	6043264.61	470783.76	1481897.83	8.85	8.48

SURVEY DATA FOR ALAMEDA DATA GAP SAMPLING
BY PLS SURVEYS, INC.

DESCRIPTION	CADD POINT	NORTHING NAD 83	EASTING NAD 83	NORTHING NAD 27 (converted)	EASTING NAD 27 (converted)	GROUND/VAULT ELEVATION	CASING ELEVATION
MW 1	240	2111190.15	6043265.58	470782.79	1481898.80	8.88	8.61
MW 2	241	2111191.26	6043266.50	470783.90	1481899.72	8.89	8.59
MW 3	242	2111192.33	6043267.50	470784.97	1481900.72	8.86	8.49
MW 15	243	2111189.84	6043269.97	470782.48	1481903.19	8.79	8.61
MW 16	244	2111188.77	6043269.07	470781.41	1481902.29	8.81	8.65
MW 17	245	2111187.76	6043268.04	470780.40	1481901.26	8.80	8.67
MW 14	246	2111186.98	6043269.37	470779.62	1481902.59	8.80	8.59
MW 13	247	2111188.07	6043270.31	470780.71	1481903.53	8.81	8.56
MW 12	248	2111189.31	6043271.04	470781.95	1481904.26	8.78	8.48
GW 1A	249	2111216.40	6043237.38	470809.04	1481870.60	8.89	8.53
S04-DGS-DP36	250	2111253.24	6042865.41	470845.90	1482498.64	9.18	
S06-DGS-DP21	251	2112246.47	6041786.25	471839.09	1480419.44	9.16	
S06-DGS-DP20	252	2112249.75	6041764.42	471842.37	1480397.61	9.38	
S06-DGS-DP19	253	2112266.00	6041734.98	471858.62	1480368.17	9.14	
S06-DGS-DP15	254	2112282.57	6041694.98	471875.19	1480328.17	8.94	
CAA10-DGS-SG02	255	2112312.25	6038635.72	471904.81	1477268.88	8.72	
CAA10-DGS-SG01	256	2112312.16	6038637.42	471904.72	1477270.58	8.76	
CAA9A-DGS-SG02	257	2108694.12	6042574.44	468286.74	1481207.68	9.29	
S11-DGS-HA01	404	2111089.29	6042251.17	470681.92	1480884.38	10.80	
S05-DGS-DP33	405	2112965.32	6039806.93	472557.91	1478440.09	10.26	
S04-DGS-DP33	406	2110706.91	6043431.01	470299.56	1482064.24	13.71	
S16-DGS-DP13	407	2108413.19	6043685.27	468005.83	1482318.53	9.65	
S11-DGS-HA02	408	2110992.59	6042334.74	470585.22	1480967.95	9.81	

CONTROL: HORIZONTAL CONTROL IS BASED ON THE CALIFORNIA COORDINATE SYSTEM,
NAD '83 ZONE III AND CONVERTED TO NAD '27 ZONE III (Conversion Software: CORPSCON v3.0
VERTICAL CONTROL IS BASED ON A BENCHMARK RECEIVED FROM FORESITE
SURVEYING, A 2" BRASS DISC SET IN CONC., NW CURB OF MAIN/ATLANTIC UNDER
STEEL COVER - RECESSED CURB. ELEV.= 6.7' (NO DATUM WAS NOTED).

APPENDIX M
MONITORING WELL SAMPLING SHEETS AND
GROUNDWATER PARAMETER SUMMARY TABLES
(143 Pages)

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TABLE M-1 GROUNDWATER PARAMETER SUMMARY TABLES

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/28/01

Monitoring Well No.: MW97-1 (Site 3) Chain of Custody No.: 4717

Personnel: Kristin Lehman / Rick E

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.3 ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.49 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1106	1	.10	5.68	7.12	7,953	21.86	+0.1	0.73	-155.9
1114	2	.15	5.73	7.14	7,662	22.37	0.5	0.53	-158.7
1121	3	.15	5.81	7.14	7,442	22.55	+0.1	0.41	-161.7
1128	4	.15	5.82	7.13	7,500	22.64	+0.2	0.32	-162.7
1134	5	.15	5.82	7.13	7,655	22.72	+0.4	0.32	-162.6
1141	6	.15	5.83	7.13	7,732	22.74	+0.4	0.33	-162.1
1147	7	.15	5.87	7.13	7,814	22.71	+0.5	0.33	-163.2
1154	8	.15	5.90	7.138	7,816	22.73	+0.4	0.33	-163.1

Begin Purge: 1106 Method of Purging: Slow Purge / Peristaltic Pump Purged Dry? NO

End Purge: 1154 Total Volume Purged: 8L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/28 1158 Sample Number (s): 385-503-040

Description of Purge Water: Water is dark yellowish; clear; no odor

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/28/01

Monitoring Well No.: MW97-2(Site 3) Chain of Custody No.: 4717

Personnel: Kristin Lehman / Rick E

Organic Vapor Concentration TOC: ____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15 ft. btoc Well Volume (2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.50 ft. btoc

Water Column: ____ ft. Well Volume Calculation: ____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1324	1	0.20	5.76	6.55	34,562	21.45	1.7	0.57	-123.7
1332	2	0.12	5.99	6.58	33,377	21.87	0.9	0.45	-128.8
1341	3	0.12	6.21	6.59	33,766	21.88	0.6	0.33	-131.9
1349	4	0.12	6.39	6.61	34,247	21.78	0.5	0.34	-133.3
Did NOT Stabalize ; Bailed Dry									
1357	2 gallons			6.78	30,10	20.68	21.7	4.78	-113.9
1402	3 gallons			7.10	33,854	19.95	43.3	5.98	-117.0
1408	4 gallons			7.17	36,009	20.22	57.9	6.07	-119.1

Sampling depth 6.60 ft

Begin Purge: 1319 Method of Purging: Slow Purge / with Peristaltic Pump and bailing Purged Dry? YES

End Purge: 1411 Total Volume Purged: 4 1/2 gallon How Measured? ~~385-503-041~~ Graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/28 1535 Sample Number (s): 385-503-041

Description of Purge Water: Water is deep yellow, clear, no odor.

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/28/01

Monitoring Well No.: MW97-3 (Site 3) Chain of Custody No.: 4717

Personnel: Kristin Lehman / Rick E

Organic Vapor Concentration TOC: ppm Breathing Zone: 0 ppm

Depth to Well Bottom: ~~15~~ 14.8 ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.88 ft. btoc

Water Column: ft. Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0937	1	0.15	5.01	7.03	800	17.33	3.8	1.05	28.5
0944	2	0.15	5.03	6.95	740	17.49	3.9	0.84	31.8
0950	3	0.20	5.06	6.92	699	17.53	1.4	1.03	24.6
0956	4	0.20	5.08	6.91	678	17.58	0.4	0.90	21.9
1002	5	0.25	5.10	6.91	661	17.57	0.2	0.78	19.2
1006	6	0.25	5.14	6.91	657	17.68	0.0	0.74	16.6
1009	7	0.25	5.16	6.91	653	17.69	0.0	0.76	15.8
1013	8	0.25	5.16	6.91	653	17.73	+.01	0.76	15.7

Begin Purge: 0927 Method of Purging: Slow-Purge w/ peristaltic Pump Purged Dry? NO

End Purge: 1015 Total Volume Purged: 8 Litres How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/28 1015 Sample Number (s): 385-S03-042

Description of Purge Water: Water has yellowish tint; clear; no odor

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/27

Monitoring Well No.: MO3-04 (site 3) Chain of Custody No.: 4718

Personnel: Kristin Lehman, RICK E

Organic Vapor Concentration TOC: ____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 11 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.77 ft. btoc

Water Column: ____ ft. Well Volume Calculation: ____ gal 7.33

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1020	1	0.25	6.23	6.87	11893	22.10	74.5	0.55	-151.8
1024	2	0.25	6.48	6.88	11934	22.10	65.0	0.49	-151.1
1027	3	0.25	6.75	6.89	11985	21.98	54.4	0.47	-151.1
1035	4	0.20	6.99	6.89	12055	21.93	47.5	0.45	-150.9
1042	5	0.15	7.16	6.91	12031	21.30	104.5	0.93	-140.7
1105	6	0.10	7.26	7.0	11902	20.77	142.9	2.22	-134.3
1112	7	0.23	7.47	6.89	12103	21.65	161.3	1.92	-145.6
1116	8	0.23	7.77	6.90	12288	21.61	180.3	1.56	-150.6
1123	9	0.15	8.01	6.90	12233	21.50	230.5	1.16	-151.2
1128	10	0.15	8.25	6.90	12250	21.49	243.4	0.96	-151.9
1135	11	0.15	8.51	6.91	12209	21.49	254.9	0.79	-152.8
1142	12	0.10	8.71	6.92	12196	21.42	258.9	0.69	-149.3
1150	13	0.10	8.95	6.93	12205	21.36	263.4	0.62	-146.3
1158	14	0.10	9.25		see note at bottom				
12:02 * 1159	15	0.25	9.95	6.93	12698	20.93	265.4	0.51	-156.4
1205	16	0.25	10.25	6.94	12377	21.0	263.4	0.49	-155.4
1209	17	0.25	10.47	6.94	12398	20.86	245.8	0.46	-156.5
1212	18	0.25	10.92	6.95	12638	20.69	279	0.43	-156.9

Begin Purge: 1020 Method of Purging: Slow Purge w/ Peristaltic Pump Purged Dry? YES TD = 11.100

End Purge: 1212 Total Volume Purged: 18 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/27/01 @ 1500 Sample Number (s): 385-503-043

Description of Purge Water: Water is slightly turbid; yellowish; strong petroleum odor

* At: 11:59 Comments: lowered pump to bottom increased flow to 0.25
Sampled later at 7.33 ft

* 11.04 water level final
* 11.100 is the TD

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/27/01

Monitoring Well No.: MO3-05 (site 3) Chain of Custody No.: 4718

Personnel: Kristin Lehman / Rick E

Organic Vapor Concentration TOC: ____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 10 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.36 ft. btoc

Water Column: ____ ft. Well Volume Calculation: ____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1310	1	0.25	7.05	7.61	7546	22.76	11.0	2.89	-161.4
1314	2	0.25	7.35	7.61	7479	22.57	3.6	1.87	-174.7
1318	3	0.25	7.55	7.60	7446	22.36	0.8	1.30	-181
1323	4	0.25	7.71	7.58	7393	21.84	0.4	0.95	-183.5
1332	5	0.15	7.77	7.57	7360	21.54	0.9	1.16	-166.7
1341	6	0.15	7.85	7.52	7516	21.42	0.4	2.46	-163.1
1348	7	0.15	7.99	7.57	7417	21.69	-0.2	1.02	-164.0
* 1354	8	0.20	8.25	7.60	7422	21.78	9.0	3.31	-157.7
1402	10	0.25	8.72	7.47	7995	21.25	3.6	1.49	-180.3
1404	11	0.25	8.89	7.52	7642	21.45	7.0	1.03	-182.9
1408	12	0.25	9.09	7.50	7742	21.42	3.5	0.72	-191.3
1411	13	0.25	9.30	7.48	7695	21.21	0.7	0.50	-197.4
1414	14	0.25	9.55	7.47	7760	21.06	0.1	0.38	-199.9
1417	15	0.25	9.76	7.45	7820	20.94	-0.3	0.31	-200.0
1421	16	0.25	9.99	7.44	7824	20.89	-0.3	0.28	-198.2
1425	17	0.25	10.00	7.41	8182	20.82	9.6	4.25	-164.2
1429	18	0.25	10.20	7.44	7961	20.79	2.5	3.44	-172.0
1432	19	0.25	10.20	7.46	7940	20.75	0.1	2.19	-185.1

missed one

Begin Purge: 1310 Method of Purging: Slow purge w/ peristaltic pump Purged Dry? YES

End Purge: 1432 Total Volume Purged: 19 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/27/01 @ 1530 Sample Number (s): 385-503-044

* Description of Purge Water: At 13:54 lowered well to bottom and pumped well dry @ 0.25 l

Comments: Water was slightly turbid; yellowish; product odor
water became very turbid, blackish as we pumped dry

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/27/01

Monitoring Well No.: M03-06 (Site 3) Chain of Custody No.: 4714

Personnel: Kristin L + Rick E

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 12 ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.52 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0842	1	0.25	6.56	8.15	1,209	21.61	1.0	0.51	-215.7
0846	2	0.25	6.56	8.13	1,166	21.67	1.2	0.38	-227.7
0850	3	0.25	6.56	8.11	1,128	21.62	1.2	0.33	-230.5
0854	4	0.25	6.56	8.11	1,090	21.65	1.7	0.30	-230.4
0858	5	0.25	6.56	8.11	1,072	21.64	1.3	0.28	-231.1
0902	6	0.25	6.56	8.12	1,057	21.71	1.4	0.27	-229.0
0906	7	0.25	6.56	8.13	1,042	21.62	1.4	0.27	-227.7
0910	8	0.25	6.56	8.13	1,033	21.57	1.5	0.26	-226.8

Begin Purge: 0842 Method of Purging: Slow Purge w/ Peristaltic Pump Purged Dry?: NO

End Purge: 0910 Total Volume Purged: 8 liters How Measured? Graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/27/01 @ 0911 Sample Number (s): 385-S03-045

Description of Purge Water: water is clear, colorless

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/28

Monitoring Well No.: MO3-08A (Site 3) Chain of Custody No.: 4717

Personnel: Kristin Lehman / Gary Thomas

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 13 ft.btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.87 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0812	1	0.15	6.41	6.97	25,839	21.05	23.8	0.64	-139.8
0817	2	0.32	6.70	7.0	22,710	21.43	~~80.5~~ 1.3	0.49	-145.4
0820	3	0.32	7.06	7.02	20,725	21.74	4.9	0.41	-153.4
0824	4	0.32	7.38	7.02	20,169	21.84	2.9	0.39	-155.9
0827	5	0.32	7.75	7.01	21,363	21.80	9.2	0.39	-155.8
0835	6	0.10	7.95	6.94	27,029	21.44	1.6	0.58	-144.5
0844	2 gal	bailer		6.98	27,306	21.07	20.6	1.63	-129.0
0846	3 gal			6.87	38,833	20.0	77.2	2.00	-119.2

Dry at 3.5 gallons

Sampling depth = 7.38

Begin Purge: 0807 Method of Purging: Slow Purge w/ Peristaltic Pump and Bailing Dry Purged Dry? YES

End Purge: 0848 Total Volume Purged: 3.5 gal How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/28 1250 Sample Number (s): 385-S03-047

Description of Purge Water: _____

Comments: Water has yellowish tint; clear; H_2S odor
Depth = 7.38 start sampling

5901

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/29/01

Monitoring Well No.: D03-01 (Site 3) Chain of Custody No.: 4764

Personnel: MIKE B. / GREGORIO R.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: _____ ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.94 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0930	INITIAL	.25	6.94	6.70	41,602	21.25	1.8	5.22	304.8
0934	1	.25	7.24 ~~6.62~~	6.62	41,890	21.13	3.6	3.94	300.1
0935	2	2.00	8.03	6.59	41,725	20.88	5.8	3.78	291.7
0936	3	2.00	8.60	6.56	42,109	23.13	3.7	3.26	271.4
0937	4	2.00	8.97	6.56	41,685	23.92	4.8	3.04	261.0
0938	5	2.00	9.26	6.56	41,899	23.3	6.3	2.88	255.2
0939	6	2.00	9.50	6.56	41,699	22.80	9.1	2.59	246.6
0940	7	2.00	9.71	6.56	42,259	22.64	9.6	2.52	244.7
0944	8	.25	9.00	6.56	42,339	22.65	11.9	2.02	231.1
0948	9	.25	8.10	6.55	42,530	22.16	13.7	1.61	210.9
0952	10	.25	7.82	6.55	43,150	21.91	26.1	1.29	190.9
0956	11	.25	7.76	6.55	43,580	21.91	23.5	1.06	160.4
1000	12	.25	7.68	6.54	43,600	21.98	20.0	0.94	143.4
1004	13	.25	7.66	6.54	42,460	22.17	12.20	0.89	123.6
1008	14	.25	7.66	6.54	41,882	22.25	10.80	0.84	107.8

Begin Purge: 0930 Method of Purging "REDI-FLO" Slow Purge Pump (Grundfos) Purged Dry? NO

End Purge: 1008 Total Volume Purged: 14 l How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/29/01 @ 1010 Sample Number (s): 385-503-048

Description of Purge Water: CLEAR / NO ODOR / NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/10/01

Monitoring Well No.: MW 360-1 (Site 4) Chain of Custody No.: 4772

Personnel: MIKE B. / GREGORIO R.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 15.00 ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.21 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1019	INITIAL	.25	4.57	6.98	3,564	21.54	4.5	-1.53	243.0
1023	1	.70	5.09	6.89	3,681	20.61	8.4	0.16	235.0
1027	2	.70	5.70	6.85	1,740	20.55	9.0	0.17	222.8
1031	3	.70	6.10	6.84	3,585	20.39	12.6	0.20	214.0
1035	4	.90	6.39	6.84	3,598	20.27	33.6	0.17	204.0
1036	5	.90	6.53	6.84	3,819	20.14	80.9	0.22	201.3
1037	6	.90	6.63	6.83	3869	20.03	23.3	0.20	196.0
1041	7	.25	5.23	6.83	3894	20.14	15.7	0.22	180.5
1045	8	.25	5.05	6.82	3865	20.27	9.9	0.31	174.5
1049	9	.25	5.06	6.82	3859	20.15	7.1	0.28	169.6

Begin Purge: 1019 Method of Purging: Slow Purge Peristaltic Pump / GRUNDFOS PUMP Purged Dry? NO

End Purge: 1049 Total Volume Purged: 9 L How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/10/01 @ ~~1100~~ 1100 Sample Number (s): 385-S04-123

Description of Purge Water: YELLOWISH-BROWN / NO ODOR / NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: MW360-2 (Site 4) Chain of Custody No.: 4809

Personnel: Mike B / Gregorio R.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 15.00 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: ~~5.83~~ 4.83 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0820	INITIAL	.25	5.11	5.95	3076	19.9	19.0	14.59	324.8
0822	1	.75	5.46	6.06	2803	19.22	270	5.75	329.3
0823	2	.75	5.61	6.15	2689	19.35	56.6	2.33	261.0
0825	3	.75	5.81	6.20	2934	19.41	104.1	4.58	351.4
0826	4	.75	6.00	6.20	3590	19.16	161	2.29	346.2
0830	5	.25	5.61	6.23	4403	18.79	27.9	2.37	285.9
0834	6	.25	5.51	6.25	4270	18.80	6.5	1.66	225.0
0838	7	.25	5.51	6.26	4130	18.81	7.1	1.62	176.0
0842	8	.25	5.51	6.26	3962	18.80	10.3	1.80	135.6

Begin Purge: 0820 Method of Purging Peristaltic Pump (slow-flow) Purged Dry? NO

End Purge: 0842 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 @ 0850 Sample Number (s): 385-S04-124

Description of Purge Water: Cloudy / No sheen / Heavy petroleum odor

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: MW360-3 (Site 47) Chain of Custody No.: 4805

Personnel: Mike B. / Grezgorio R.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.30 ft.btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.55 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0959	INITIAL	.25	4.99	7.49	1153	21.80	4.1	3.41	331.0
1001	1	.25	5.60	7.22	1146	22.13	3.4	1.69	330.6
1002	2	.25	5.68	7.16	1142	22.18	5.3	1.47	326.3
1003	3	.25	5.81	7.14	1141	22.10	6.9	1.32	321.3
1008	4	.25	5.58	7.10	1211	21.44	4.4	1.12	312.2
1011	5	.25	5.50	7.07	1215	21.20	5.1	1.00	303.8
1015	6	.25	5.43	7.06	1216	21.50	2.5	0.94	295.2
1019	7	.25	5.37	7.05	1216	21.18	1.8	0.86	285.0
1023	8	.25	5.35	7.04	1214	21.22	1.5	0.80	279.0

Begin Purge: 0959 Method of Purging Peristaltic Pump (Slow-Purge) Purged Dry? NO

End Purge: 1023 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 @ 1030 Sample Number (s): 385-504-125

Description of Purge Water: ~~Clear~~ Yellowish COLOR W/ NO ODOR / NO SHEEN

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/29/01

Monitoring Well No.: MW3100-4 (Site 4) Chain of Custody No.: _____

Personnel: KRISTIN LEHMAN / RICK E

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15 ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 3.91 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0932	1	0.15	4.37	7.27	624	22.15	15.8	0.91	-26.1
0947	2	0.15	4.41	7.26	644	21.89	75.5	0.66	-25.0
0954	3	0.15	4.51	7.25	671	21.57	18.7	0.58	-21.6
1001	4	0.15	4.52	7.24	690	21.33	3.4	0.48	-18.0
1006	5	0.15	4.52	7.23	707	21.36	2.9	0.46	-15.7
1013	6	0.15	4.57	7.22	720	21.41	6.8	0.45	-13.3
1020	7	0.15	4.59	7.22	711	21.32	10.6	0.43	-10.5
1027	8	0.15	4.62	7.21	711	21.31	8.9	0.41	-10.9

Begin Purge: 0926 Method of Purging: SLOW PURGE/ WITH PERISTALTIC PUMP Purged Dry? NO

End Purge: 1027 Total Volume Purged: 8L How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/29 1030 Sample Number (s): 385-S04-126

Description of Purge Water: water is clear; no odor

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: MO4-05 (Site 4) Chain of Custody No.: 4805

Personnel: Mike B. / Bhagwan R

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 14.00 ft.btoc Well Volume (2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft)

Depth to Water: 5.07 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0911	INITIAL	.25	5.28	7.10	884.0	21.66	3.0	4.31	265.4
0912	1	.75	5.60	7.05	841.0	22.5	6.2	3.98	265.3
0914	2	.75	5.90	7.05	833.0	23.1	51.0	3.98	265.3
0915	3	.75	6.10	7.05	834.0	23.26	1.2	3.50	264.5
0916	4	.75	6.27	7.05	830.0	23.10	7.4	2.86	261.4
0920	5	.25	6.23	7.06	843.0	22.11	1.0	2.76	275.5
0924	6	.25	6.23	7.04	848.0	22.10	0.1	2.61	268.4
0928	7	.25	6.23	7.04	845	22.15	0.1	2.45	273.4
0932	8	.25	6.23	7.04	845	22.10	0.1	2.29	275.0

Begin Purge: 0911 Method of Purging Peristaltic Pump (slow-purge) Purged Dry? NO

End Purge: 0932 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 @ 0940 Sample Number (s): 385-504-127

Description of Purge Water: Clear / No odor / No sheen

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/2/01

Monitoring Well No.: M04-06 (Site 4) Chain of Custody No.: 4712

Personnel: Rick Erdman / Laura Genin

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: _____ ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 2.65 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1108	0	0	2.65	6.74	1133	21.54	0.5	1.45	186.3
1115	1	0.17	3.78	6.62	1073	19.93	1.6	0.69	201.3
Pump @ 1 L/min to drop well.									
1119	2	0.50	4.46	6.62	1047	19.19	0.9	0.35	208.3
1121	3	0.50	4.78	6.62	1039	19.26	0.9	0.33	210.0
1124	4	0.50	4.91	~~7.91~~ 6.61	1009	19.36	2.5	0.46	212.0
1126	5	0.50	5.06	6.62	982	19.49	3.4	0.84	215.0
1128	6	0.50	5.17	6.64	1004	19.41	9.4	0.82	217.6
1131	7	0.50	5.25	6.65	1022	19.42	8.6	0.61	220.4
1139	8	0.15	4.95	6.66	1068	20.13	17.7	0.57	224
1145	9	0.15	4.91	6.65	1057	19.41	25.2	0.43	227.7
1150	10	0.15	4.88	6.66	1064	19.60	34.3	0.40	230.5
1153	11	0.25	4.92	6.66	1059	19.37	37.6	0.37	231.9
1155	12	0.25	4.96	6.66	1058	19.35	36.9	0.37	232.4
End Purge									

Begin Purge: 1108 Method of Purging (slow purge) peristaltic pump Purged Dry? NO

End Purge: 1155 Total Volume Purged: 12 L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☑ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 7/2/01 12:00 Sample Number (s): 385-504-128

Description of Purge Water: Clear

Comments: Duplicate ID= 385-504-901 Time 12:30
Date 7/2/01

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/2/01

Monitoring Well No.: MO4-07 (Site 4) Chain of Custody No.: 4712

Personnel: Rick, Erdman / Laura Gerin

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 13.70 ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.13 ft. btoc

Water Column: ft. Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0817	0	0	5.13	6.43	871	22.75	2.0	4.41	244.5
0823	1		5.55	7.40	897	23.20	6.5	0.81	209
0830	2	0.15	5.82	7.45	901	23.65	14.5	0.90	194
0835	3	0.25	5.98	7.44	900	23.70	19.7	0.88	190.1
0845	4	0.10	6.25						
Stress well		0.40							
0849	5	0.40	6.60	7.37	887	23.73	19.3	0.50	169.8
0851	6	0.40	6.85	7.35	887	23.87	17.9	0.43	167.3
0854	7	0.40	7.19	7.34	886	23.75	28.6	0.36	163.3
0857	8	0.40	7.50	7.33	885	23.77	26.4	0.36	161.1
0900	9	0.40	7.75	7.32	880	23.62	31.6	0.34	158.9
0902	10	0.40	8.03	7.33	883	23.32	34.4	0.35	156.1
Begin slow purge again.									
0913	11	0.14	8.04	7.43	913	23.63	37.7	0.45	146.5
0925	12	0.14	8.05	7.45	922	23.63	36.1	0.51	140.1
0936	13	0.14	8.11	7.45	913	23.55	35.2	0.51	141.5
End Purge									

Begin Purge: 0817 Method of Purging (Slow Purge) Peristaltic Pump Purged Dry? NO

End Purge: 0936 Total Volume Purged: 13L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/2/01 1000 Sample Number (s): 385-504-129

Description of Purge Water: Slight yellow tint.

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

(Site 4)

Date: 7/25/01

Monitoring Well No.: M04-07 (Resampling for TPH-e and SVOCs)

Chain of Custody No.: 4806

Personnel: MIKE B. / GARY T.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.00 ft.btoc

Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.25 ft. btoc

Water Column: N/A ft.

Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1315	INITIAL	.25	5.45	6.79	986	23.12	45.1	2.12	153.3
1316	1	.75	5.88	7.17	990	23.17	122.4	1.06	135.1
1318	2	.75	6.23	7.26	986	23.50	13.4	0.99	133.0
1319	3	.75	6.55	7.30	980	23.67	15.9	1.29	139.7
1320	4	.75	6.85	7.30	963	23.80	6.7	1.73	147.7
1324	5	.25	7.05	7.32	953	23.56	9.5	1.92	158.5
1328	6	.20	7.09	7.35	941	23.33	4.0	1.93	159.5
1333	7	.20	7.15	7.35	926	23.29	2.8	2.07	156.8
1336	8	.20	7.18	7.36	920	23.06	2.2	2.10	155.0

Begin Purge: 1315 Method of Purging PERISTALTIC PUMP (SLOW-PURGE) Purged Dry? NO

End Purge: 1336 Total Volume Purged: 8 l How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/25/01 @ 1345 Sample Number (s): 385-S04-129A

Description of Purge Water: CLEAR / NO ODOR / NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: GW-1 (BATTELLE)(SIDE 4) Chain of Custody No.: 4805

Personnel: MIKE B. / GREGORIO R.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 9 ppm

Depth to Well Bottom: 25.00 ft.btoc Well Volume: (1) inch well / 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.67 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1254	INITIAL	.25	5.20	8.12	86	27.74	198	4.10	232.0
1254	1	.60	6.50	7.49	4,598	20.00	13.7	2.10	259.7
1257	2	.80	7.65	7.33	4,600	20.01	15.0	1.81	267.8
1258	3	.80	8.65	7.26	4,729	20.07	20.5	1.87	273.8
1259	4	.80	9.45	7.11	5,220	20.08	68.9	1.75	280.9
1303	5	.25	9.25	6.82	9575	20.58	26.7	2.53	299.3
1307	6	.25	8.97	6.82	10,642	20.52	17.6	2.52	297.6
1311	7	.25	8.79	6.81	10,701	20.49	14.2	2.05	294.5
1315	8	.25	8.64	6.81	10,660	20.43	12.5	2.20	291.5
~~1319~~	~~9~~	~~.250~~	8.57	6.81	10,758	20.41	12.3	2.10	289.9
1319	9	.25							

Begin Purge: 1254 Method of Purging Peristaltic Pump (Slow-Purge) Purged Dry? NO

End Purge: 1315 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 @ ~~1320~~ 1330 Sample Number (s): 385-504-175

Description of Purge Water: Yellowish / NO ODOR / NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: SW-1 (BATTELLE) (Site 41) Chain of Custody No.: 4805

Personnel: MIKE B / GREGORIO R

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 25.00 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.70 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1350	INITIAL	.25	5.00	7.46	9,794	23.96	1.8	4.33	324.0
1352	1	.75	6.67	7.03	10,580	20.50	75.4	3.21	329.3
1353	2	.75	7.15	6.97	10,902	20.44	4.9	2.30	330.0
1354	3	.75	7.61	6.92	9,996	20.45	6.8	2.33	329.1
1356	4	.75	8.25	6.91	10,968	20.37	11.0	3.02	328.4
1357	5	.75	8.57	6.90	10,886	20.36	9.0	2.59	327.2
1401	6	.25	7.94	6.89	10,921	20.18	8.6	2.63	323.6
1405	7	.25	7.52	6.88	10,992	19.91	11.0	1.92	319.0
1409	8	.25	7.35	6.88	10,867	20.01	11.3	2.17	315.1
1413	9	.25	7.20	6.88	10,895	19.73	9.3	1.98	311.2
1417	10	.25	7.17	6.87	10,837	19.85	7.7	2.12	308.0

Begin Purge: 1350 Method of Purging Peristaltic Pump (Slow-purge) Purged Dry? NO

End Purge: 1413 Total Volume Purged: 10 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 @ 1420 Sample Number (s): 385-504-176

Description of Purge Water: Clear / No odor / No sheen

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/10/01

Monitoring Well No.: MBG-3 (site 4) Chain of Custody No.: 4772

Personnel: MIKE B. / GREGORIO R.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 15.00 ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.75 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0841	INITIAL	.25	4.60	6.28	1036	18.09	14.4	-6.79	415.0
0844	1	.70	5.11	6.73	1034	18.14	22.2	-0.72	132.8
0845	2	.70	5.35	6.74	1021	18.34	18.4	-0.36	58.7
0846	3	.70	5.58	6.75	1000	18.50	23.2	-1.8	-3.1
0848	4	.70	5.80	6.76	995	18.61	89.4	-0.17	-42.7
0849	5	.70	5.98	6.77	990	18.69	2.2	-1.64	-56.2
0850	6	.70	6.16	6.78	1005	18.73	11.3	-0.36	-72.0
0852	7	.70	6.31	6.79	1048	18.67	4.4	0.20	-85.0
0854	8	.70	6.43	6.81	1065	18.64	3.7	0.02	-92.4
0858	9	.25	~~6.76~~ 6.17	6.86	1107	18.51	2.2	1.05	-113.5
0902	10	.25	6.03	6.89	1116	18.46	2.0	0.86	-123.8
0906	11	.25	5.90	6.90	978	18.51	2.2	0.36	-131.3
0909	12	.25	5.86	6.92	1120	18.55	2.4	-0.22	-135.3
0913	13	.25	5.79	6.93	1115	18.54	2.6	0.22	-140.0
0916	14	.25	5.79	6.93	1119	18.56	2.6	0.37	-140.6
0919	15	.25	5.79	6.94	1115	18.55	2.7	0.28	-140.5

Begin Purge: 0841 Method of Purging: Slow Purge PERISTALTIC PUMP / GRUNDFOS PUMP Purged Dry? NO

End Purge: 0906 Total Volume Purged: 15 L How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☒ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 7/10/01 @ 0920 Sample Number (s): 385-504-135

Description of Purge Water: BROWNISH-RED / NO SHEEN / SLIGHT SULFUR ODOR

Comments: ~~NONE~~ DUPLICATE SAMPLE 385-504-902 COLLECTED @ 0930

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: MW-5 (BATTELLE) (Site 4) Chain of Custody No.: 4805

Personnel: MIKE B. / GREGORIO R

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 24.50 ft.btoc Well Volume: 1-inch well = 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: ~~4.70~~ 5.45 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1058	INITIAL	.75	15.75	7.40	7664	20.58	163.1	8.01	327.1
1059	1	.75	13.80	7.18	7125	21.10	709.0	3.52	295.2
1107	2	.10	~~15.85~~ 15.35	7.09	7474	20.51	1980	3.22	237.8
1108	3	.75	19.31	7.07	7525	20.76	853.0	2.86	206.8
1118	4	.12	19.05	7.21	6547	19.95	41.6	1.40	132.0
1127	5	.12	18.97	7.23	6345	20.01	38.6	1.62	86.4
1137	6	.12	19.30	7.23	6266	20.22	478	1.35	60.9
1147	7	.12	19.40	7.23	6290	20.45	3.9	1.30	102.3
1157	8	.12	19.41	7.24	6149	20.73	5.7	~~1.60~~ 1.20	142.0

Begin Purge: 1058 Method of Purging Peristaltic Pump (slow flow) Purged Dry? NO

End Purge: 1157 Total Volume Purged: 8L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 @ 1220 Sample Number (s): 385-S04-174

Description of Purge Water: Clear, no odor, no sheen

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/10/01

Monitoring Well No.: MW-10 - Battelle (SITE 4) Chain of Custody No.: 4772

Personnel: MIKE B. / GREGORIO R.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 27.00 ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
4 INCH
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.46 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1241	INITIAL	.25	6.00	7.23	10,840	21.34	15.2	9.24	273.8
1243	1	.60	12.00	7.06	10,766	20.30	121.7	1.08	274.3
1245	2	.60	16.46	6.99	10,780	20.40	57.0	1.00	273.4
1255	3	.20	16.31	6.80	13,332	21.12	7.2	0.43	270.9
1256	4	.20	16.00	6.79	13,607	21.25	12.9	0.40	268.4
1301	5	.20	15.80	6.78	14,071	20.97	9.1	0.37	266.1
1312	6	.20	16.81	6.77	13,141	20.37	15.6	0.33	263.1
1320	7	.10	14.65	6.76	14,672	20.92	5.8	0.32	261.5
1330	8	.10	13.60	6.77	14,849	20.70	1.7	0.32	265.2
1340	9	.10	12.92	6.77	14,722	20.80	2.9	0.31	270.4
1350	10	.10	12.85	6.77	14,600	20.94	2.8	0.31	273.4
1400	11	.10	12.86	6.78	14,611	20.87	6.2	0.31	275.0

Begin Purge: 1241 Method of Purging: Slow Purge PERISTALTIC PUMP / GRUNDFOS PUMP Purged Dry? NO

End Purge: 1400 Total Volume Purged: 11 L How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/10/01 @ 1410 Sample Number (s): 385-S04-173

Description of Purge Water: CLEAR / NO ODOR / NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

(Site 4)

Date: 7/3/01

Monitoring Well No.: D04-01 (S04-D04-01-GW) Chain of Custody No.: 4784

Personnel: L. Genin / R. Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: ~~0~~ ppm

Depth to Well Bottom: 96.0 ft. btoc

Depth to Water: 6.11 ft. btoc

Water Column: ft.

Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0818	0		5.95	6.09	8,396	20.61	3.0	5.91	275.6
0821	~~0.20~~ 1	0.20	6.23	6.49	31,300	20.72	3.8	2.88	229.6
0826	2	0.25	~~6.48~~ 6.45	6.78	42,666	20.83	3.3	0.94	-7.7
0830	3	0.25	6.25	6.86	43,494	21.09	7.9	0.70	-43.7
0834	4	0.25	6.25	6.89	43,731	20.90	10.2	0.48	-58.2
0838	5	0.25	6.25	6.91	43,875	21.06	~~25.6~~ 4.4	0.43	-66.5
0841	6	0.25	6.25	6.92	43,988	21.15	4.9	0.40	-70.4
0845	7	0.25	6.25	6.92	44,227	21.20	4.9	0.38	-73.4
0848	8	0.25	6.25	6.92	44,329	21.37	2.9	0.36	-76.1

Begin Purge: 0818 Method of Purging ~~Peristaltic Pump~~ Slow Purge w/ Grundfos Pump Purged Dry? No

End Purge: 0848 Total Volume Purged: 8 L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☑ No QA/QC Sample

Date and Time of Sample Collection: 7/3/01 0900 Sample Number (s): 385-S04-130

Description of Purge Water: Clear, colorless, odorless

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/3/01

Monitoring Well No.: (D04-02) (Site 4) S04-D04-02-GW Chain of Custody No.: 4784

Personnel: L. Genin R. Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 96.0 ft. btoc

Depth to Water: 6.40 ft. btoc

Water Column: ft.

Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1014	0	0.24	~~6.67~~ 6.36	7.10	38,329	21.54	10.5	4.12	36.0
1017	01	0.24	6.61	6.88	42,200	21.07	11.6	2.86	-11.4
1023	2	0.25	6.67	6.86	43,125	20.78	21.	1.98	-71.8
1027	3	0.25	6.67	6.88	43,085	20.44	54.0	1.56	-86.2
1031	4	0.25	6.62	6.89	43,517	20.99	37.9	1.11	-95.6
1035	5	0.25	6.65	6.89	43,671	20.92	30.4	0.96	-98.0
1039	6	0.25	6.65	6.89	43,531	20.86	22.4	0.82	-97.9
1043	7	0.25	6.65	6.88	43,578	21.06	18.7	0.74	-97.6
1046	8	0.25	6.65	6.88	43,531	20.94	10.1	0.66	-97.0
1050	9	0.25	6.65	6.87	43,281	20.80	7.8	0.58	-96.5
1054	10	0.25	6.65	6.87	43,401	21.16	5.9	0.55	-96.2
End Purge									

Begin Purge: 1014 Method of Purging Slow purge / grundfos submersible Purged Dry? No

End Purge: 1054 Total Volume Purged: 10 L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/3/01 1100 Sample Number (s): 385-S04-131

Description of Purge Water: Clean, colorless, odorless

Comments: Turbidity meter malfunction. Water is clear.

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/10/01

Monitoring Well No.: D04-03 (Site 4) Chain of Custody No.: 4829

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: ~~75~~ 94' ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.75' ft. btoc

Water Column: ft. Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	* Turbidity (NTU)	* D. O. (mg/L)	O. R. P. (mV)
0923	1	~.3-.4	7.28	6.16	59,254	19.28	177.7	-	317.2
0927	2	.25	7.22	6.17	13,486	19.42	338.6	-	295.3
0931	3	.25	7.22	6.42	61,500	19.36	6.8	-	163
0935	4	.25	7.23	6.5	62,050	19.49	-	-	33.7
0939	5	.25	7.22	6.53	62,186	19.48	-	-	-7
0943	6	.25	7.22	6.54	62,178	19.54	4.3	0.75	-22.5
0947	7	.25	7.23	6.55	62,281	19.61	4.2	0.71	-32
0951	8	.25	7.22	6.55	62,512	19.65	3.0	0.55	-38.2
0955	9	.25	7.22	6.55	62,665	19.72	2.5	0.61	-41.9

Begin Purge: 9:20 Method of Purging Micro Purge (~~Peristaltic~~ Grund fos Pump) Purged Dry? No

End Purge: 0959 Total Volume Purged: 9L How Measured? (Graduated Cylinder)

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/10/01 @ 1000 Sample Number (s): 385-504-132

Description of Purge Water: Clear, slight yellowish tint, odorless

Comments: * Turbidity / DO readings -- See log book
were incorrect where not recorded (meter was malfunctioning)

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/29/01

Monitoring Well No.: MW372-1 (Site 4) Chain of Custody No.: 4710

Personnel: KRISTIN LEHMAN/RICK E

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 6 ppm

Depth to Well Bottom: 12.7 ft. btoc Well Volume: (2) inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 1.98 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1138	1	0.15	2.06	7.65	164	22.94	28.6	2.45	39.1
1142	2	.32	2.20	7.64	163	22.88	39.5	2.08	41.2
1146	3	.25	2.23	7.63	162	22.85	34.1	2.10	42.1
1149	4	.25	2.28	7.63	162	22.95	30.7	2.09	54.1
1153	5	.25	2.30	7.63	162	22.99	26.4	2.11	48.0
1157	6	0.25	2.31	7.63	162	23.09	25.6	2.13	43.6
1201	7	0.25	2.32	7.63	163	23.13	22.0	2.13	50.3
1205	8	0.25	2.34	7.63	165	23.09	18.6	2.11	44.8

Begin Purge: 1126 Method of Purging SLOW PURGE W/ PERISTALTIC PUMP Purged Dry? NO

End Purge: 1205 Total Volume Purged: 8 Liters How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/29 1210 Sample Number (s): 385-S04-153

Description of Purge Water: Water is yellowish; slightly turbid; no odor

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/29/01

Monitoring Well No.: MW372-3 (site 4) Chain of Custody No.: 4710

Personnel: KRISTIN LEHMAN / RICK E

Organic Vapor Concentration TOC: ppm Breathing Zone: 6 ppm

Depth to Well Bottom: ~~[illegible]~~ ft. btoc Well Volume: (2) inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: ~~7.00~~ 4.57 ft. btoc

Water Column: ~~4.57~~ ft. Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1326	1	0.25	4.91	6.66	570	21.34	30.3	0.64	170.7
1330	2	0.25	5.10	6.64	568	21.50	26.9	0.52	173.7
1335	3	0.20	5.30	6.70	572	22.01	25.3	0.50	165.9
1342	4	0.12	5.5	6.77	566	22.47	43.3	0.48	154.4
switched* to 600 rpm 1346	5	0.45	5.75	6.78	560	21.30	22.4	0.29	146.2
1348	6	0.45	5.97	6.76	559	21.34	20.9	0.24	138.9
1350	7	0.45	6.16	6.76	559	21.44	20.9	0.25	127.6
1353	8	0.45	6.32	6.77	558	21.52	17.4	0.23	114.6
1355	9	0.45	6.51	6.78	557	21.59	17.6	0.23	103.6
1357	10	0.45	6.67	6.80	557	21.62	18.1	0.23	91.2
1359	11	0.45	6.89	6.82	560	21.79	15.5	0.24	74.1
1401	12	0.45	7.10	6.84	564	21.84	17.8	0.25	59.1
Switched back to 300 rpm 1403	13	0.45	7.28	6.86	565	21.79	16.3	0.24	44.7
Decreased flow to 0.12 L/min									
1412	14	0.12	7.32	6.99	581	23.30	14.0	0.36	24.3
1423	15	0.12	7.35	7.04	581	23.26	14.5	0.42	24.9
1431	16	0.12	7.41	7.04	563	22.81	15.5	0.46	29.0

Begin Purge: 1321 Method of Purging: Slow purge w/ Peristaltic Pump Purged Dry? No

End Purge: 1431 Total Volume Purged: 16 liters How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/29 1435 Sample Number (s): 385-S04-134

Description of Purge Water: Water is yellowish, turbid; no odor

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/11/01

Monitoring Well No.: MOS-01 (Sites) Chain of Custody No.: 4816

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 6 ppm

Depth to Well Bottom: ~~7.75~~ 13.8' ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 7.73' ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1230	1	.15	8.13	7.02	26,106	20.61	10.2	3.76	-75.3
1237	2	.15	8.25	6.94	25,084	20.57	8.3	3.34	-61.9
1247	3	.13	8.34	6.98	25,034	20.57	5.2	3.07	-76.6
1256	4	.15	8.37	6.97	24,942	20.53	4.6	2.78	-80.7
1300	5	.15	8.41	7.00	24,727	20.4	3.9	2.49	-90
1307	6	.15	8.47	7.07	24,390	20.31	3.1	2.21	-106.9
1314	7	.15	8.49	7.06	24,273	20.37	2.6	2.04	-111.3
1319	8	.15	8.50	7.06	24,049	20.43	1.97	1.96	-109.8

Begin Purge: 1225 Method of Purging Micro Purge (Peristaltic pump) Purged Dry? NO

End Purge: 1319 Total Volume Purged: 8L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/11/01 ~~1315~~ 1340 Sample Number (s): 385-SOS-102

Description of Purge Water: Slight H_2S odor; Clear

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/11/01

Monitoring Well No.: M05-02 (Site 5) Chain of Custody No.: 4816

Personnel: Kirk S. Martin

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 13.6' ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.98' ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1438	1	.15	6.99'	7.44	8,663	22.45	3.1	3.33	-92.8
1443	2	.25	7.03	7.62	4,433	22	2.4	2.88	-20.8
1446	3	.25	~~7.02~~ 7.01	7.62	3,344	22.06	1.9	2.8	-89.4
1450	4	.25	7.02	7.6	3,378	22.05	1.9	2.67	-20.2
1454	5	.25	7.03	7.58	3,373	22.1	2	2.48	-93.4
1458	6	.25	7.03	7.57	3,384	22.11	1.9	2.40	-94.5
1502	7	.25	~~7.5~~ 7.03	7.56	3,500	22.28	1.8	2.22	-95.1
1506	8	.25	7.03	7.55	3,659	22.32	2.0	2.21	-100.8

Begin Purge: 1430 Method of Purging Micro Purge (Peristaltic pump) Purged Dry? No

End Purge: 1506 Total Volume Purged: _____ How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/11/01 1510 Sample Number (s): 385-505-103

Description of Purge Water: Clear / odorless

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/12/01

Monitoring Well No.: MO 5-03 (Site 5) Chain of Custody No.: 4745

Personnel: Kirk Martin, Rick Erdman

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 12 ft.btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: Not measured ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (__S/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
Well Contains Floating Product; No Field Parameters Were Measured									

Begin Purge: _____ Method of Purging Floating Product Sampled with a Disposable Bailer Well was not purged Purged Dry? N/A

End Purge: _____ Total Volume Purged: N/A How Measured? N/A

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/12/01 @ 1445 Sample Number (s): 385-505-104

Description of Purge Water: No purge water was generated; floating Product was sampled

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/13/01

Monitoring Well No.: MOS-04 (Site 5) Chain of Custody No.: ~~7850~~ 7818 7/13/01

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: n/a ppm Breathing Zone: n/a ppm

Depth to Well Bottom: 15' ft. btoc Well Volume (2-inch well) = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.55' ft. btoc

Water Column: n/a ft. Well Volume Calculation: n/a gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1231	1	.15	6.66'	7.06	25,116	22.63	12	0.83	-106.6
1237	2	.15	6.66'	7.09	24,310	22.77	10.6	0.66	-116.9
1241	3	.25	6.73	7.14	17,953	22.75	26.4	0.55	-119.4
1245	4	.25	6.75	7.15	13,780	22.87	14.9	0.51	-114.4
1249	5	.25	6.75	7.15	12,395	22.84	8.9	0.48	-112.6
1253	6	.25	6.75	7.16	11,890	22.96	7.3	0.47	-113.3
1257	7	.25	6.75	7.16	11,488	22.95	5.0	0.46	-114.0
1301	8	.25	6.75	7.17	10,846	22.96	5.1	0.44	-112.4

Begin Purge: 1231 Method of Purging Micro Purge-Peristaltic Pump Purged Dry? No

End Purge: 1301 Total Volume Purged: 8 Liters How Measured? Graduated Cylinder

QA/QC Sample Collected Here? n/a ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/13/01 1300 Sample Number (s): 385-505-105

Description of Purge Water: slight yellowish-gray / H_2S odor

Comments: Collected diffusion bag samples: 5 bags @ 2' intervals.

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/12/01

Monitoring Well No.: M05-05 (Site 5) Chain of Custody No.: 4817

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 13.7 ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 7.28 ft. btoc

Water Column: n/a ft. Well Volume Calculation: n/a gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1310	1	.15	~~8.15~~ 7.40	7.15	4,934	20.38	4.3	1.22	-107.7
1317	2	.25	7.46	7.21	4,290	20.07	4	1.07	-105.2
1321	3	.25	7.46	7.23	3,933	20.08	3.8	0.96	-106.5
1325	4	.25	7.54	7.26	3,540	20.18	3.2	0.76	-108
1329	5	.25	7.52	7.27	3,380	20.07	2.7	0.64	-109.6
1333	6	.25	7.51	7.27	3,276	20.11	2.6	0.69	-109.5
1337	7	.25	7.52	7.27	3,261	20.11	2.6	0.74	-108.1
1341	8	.25	7.52	7.27	3,310	20.16	2.5	0.70	-108.2

Begin Purge: 1303 Method of Purging MicroPurge Peristaltic Pump Purged Dry? NO

End Purge: 1341 Total Volume Purged: 8 How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/12/01 ~~1350~~ 1400 Sample Number (s): 385-505-106

Description of Purge Water: Clear / No odor

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/12/01

Monitoring Well No.: MO5-06 (Site 5) Chain of Custody No.: 4817

Personnel: Kirk S. Martin / Rick Eadman

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 11.9 ft. btoc

Depth to Water: 6.61' ft. btoc

Water Column: n/a ft.

Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: n/a gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0943	1	.15	6.64	7.1	7,488	19.83	14.6	2.06	42.7
0950	2	.15	6.64	7.26	7,857	20.43	12.5	1.21	4.8
0954	3	.25	6.64	7.35	6,080	21.31	15	0.63	-23.1
0958	4	.25	6.66	7.35	5,782	21.45	12.7	0.60	-26.1
1002	5	.25	6.68	7.35	5,610	21.4	10.4	0.63	-30
1006	6	.25	6.68	7.35	5,409	21.60	7.6	0.60	-33.8
1010	7	.25	6.68	7.36	5,882	21.67	7.36	0.63	-36.8
1014	8	.25	6.68	7.36	5,242	21.61	5.5	0.67	-38.3

Begin Purge: 938 Method of Purging Micro - Peristaltic Pump Purged Dry? No

End Purge: 1014 Total Volume Purged: 8 liters How Measured? Graduated Cylinder

QA/QC Sample Collected Here? No ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/12/01 1020 Sample Number (s): 385-505-107

Description of Purge Water: Clear / Slight H_2S odor / No Sheen

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/12/01

Monitoring Well No.: MO5-07 (site 5) Chain of Custody No.: 4817

Personnel: Kirk S. Martin / Rick Bradman

Organic Vapor Concentration TOC: – ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 17' ft. btoc Well Volume: ~~2-inch well~~ = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 7.41 ft. btoc

Water Column: n/a ft. Well Volume Calculation: n/a gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1114	1	.15	7.43	6.89	9950	20.96	35.2	1.15	-79.8
1119	2	.25	7.44	6.89	7876	21.35	29	0.64	-83.1
1123	3	.25	7.44	6.88	8264	21.33	27.5	0.53	-87.3
1128	4	.25	7.44	6.89	8190	21.35	44.1	0.49	-90.4
1132	5	.25	7.44	6.89	8241	21.33	13.2	0.48	-91
1136	6	.25	7.44	6.89	8470	21.34	32	0.48	-92.9
1140	7	.25	7.44	6.9	8461	21.40	18.3	0.46	-95.3
1144	8	.25	7.44	6.9	8514	21.42	15.8	0.45	-96.3
1148	9	.25	7.44	6.91	8555	21.35	14.1	0.45	-97

Begin Purge: 1110 Method of Purging Micro Purge - Peristaltic Pump Purged Dry? No

End Purge: 1148 Total Volume Purged: 9L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? Yes ☐ Duplicate ☒ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 7/12/01 1200 Sample Number (s): 385-S05-108

Description of Purge Water: Slight yellowish-gray / slight odor - Organic

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/12/01

Monitoring Well No.: MOS-08 (Site 5) Chain of Custody No.: 4817

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 14.9 ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 8.45' ft. btoc

Water Column: Ø ft. Well Volume Calculation: n/a gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1422	1	.15	8.49'	7.19	995	23.37	40.5	1.60	-59.3
1427	2	.25	8.52'	7.15	734	22.91	23.5	0.95	-82.7
1431	3	.25	8.52'	7.14	812	22.79	~~22.79~~ 14.6	0.76	-92.2
1435	4	.25	8.52'	7.16	874	22.72	11.8	0.69	-97.4
1439	5	.25	8.52'	7.17	941	22.7	8.7	0.64	-99.9
1443	6	.25	8.52'	7.16	995	22.59	8.3	0.61	-99.3
1447	7	.25	8.52'	7.16	1025	22.47	7.6	0.61	-100.7
1451	8	.25	8.52	7.16	1072	22.42	6.5	0.57	-102

Begin Purge: 1415 Method of Purging Micro Purge-Peristaltic Pump Purged Dry? NO

End Purge: 1451 Total Volume Purged: 8 liters How Measured? Graduated Cylinder

QA/QC Sample Collected Here? No ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/12/01 1500 Sample Number (s): 385-505-109

Description of Purge Water: Sl. yellow / odorless

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/11/01

Monitoring Well No.: M05-09 (Site 5) Chain of Custody No.: 4775

Personnel: MARK CRUICKSHANK / GREGORIO RAMIREZ.

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 14.85 ft.btoc Well Volume (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 7.08 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1435	INITIAL	.20	7.18	7.52	452.0	22.37	29.8	4.64	221.7
1440	1.0	0.25	7.18	7.36	455.0	22.78	8.2	4.22	265.5
1446	2.0	0.25	7.18	7.38	458	22.95	3.3	3.22	268.4
1450	3.0	0.25	7.18	7.43	461	22.89	1.0	2.43	262.3
1455	4.0	0.25	7.18	7.43	462	22.86	0.9	2.33	261.8
1459	5.0	0.25	7.23	7.41	460	22.80	1.3	2.39	262.8
1503	6.0	0.25	7.25	7.42	463	22.83	1.3	2.23	263.1
1507	7.0	0.25	7.25	7.42	462	22.76	1.3	2.19	262.9
1511	8.0	0.25	7.25	7.42	461	22.72	1.4	2.19	264.2

Begin Purge: 1435 Method of Purging Slow Purge w/ Peristaltic Pump Purged Dry? NO

End Purge: 1529 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/11/01 / 1515 Sample Number (s): 385-505-110

Description of Purge Water: SLIGHTLY COLORED, ODORLESS

Comments: none

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/11/01

Monitoring Well No.: MO5-10 (Site 5) Chain of Custody No.: 4775

Personnel: MARK CRUICKSHANK / GREGORIO RAMIREZ

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.72 ft.btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 7.47 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1303	INITIAL	0.20	7.48	8.47	655.0	18.53	9.0	1.22	192.4
1307	1	0.25	7.50	7.83	476.0	18.59	4.3	0.74	206.0
1311	2	0.25	7.50	7.75	454.0	18.57	1.0	0.72	202.1
1315	3	0.25	7.50	7.73	447.0	18.53	2.5	0.68	200.3
1319	4	0.25	7.51	7.71	445.0	18.49	1.7	0.62	196.6
1323	5	0.25	7.51	7.71	447.0	18.48	1.0	0.59	193.3
1327	6	0.25	7.50	7.70	452.00	18.48	0.6	0.56	189.4
1331	7	0.25	7.51	7.69	454.00	18.47	0.5	0.52	185.2
1335	8	0.25	7.51	7.69	457.00	18.45	0.5	0.55	178.1
1340	9	0.25	7.51	7.68	459.0	18.44	0.1	0.51	171.3
1344	10	0.25	7.51	7.67	464.0	18.45	0.1	0.50	161.0
1350	11	0.25	7.51	7.68	464.0	18.46	0.1	0.56	153.0
1355	12	0.25	7.51	7.67	467.0	18.47	0.1	0.52	138.0

Begin Purge: 1303 Method of Purging Slow Purge (peristaltic pump) Purged Dry? NO

End Purge: 1415 Total Volume Purged: 12 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/11/01 | 1400 Sample Number (s): 385-505-111

Description of Purge Water: CLEAR, ODORLESS

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/11/01

Monitoring Well No.: MOS-11 (Site 5) Chain of Custody No.: 4775

Personnel: GREGORIO RAMIREZ, MARK PRUICISLANK

Organic Vapor Concentration TOC: ____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.25 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 8.13 ft. btoc

Water Column: ____ ft. Well Volume Calculation: ____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
817	INITIAL	.20	8.20	6.75	11,912	17.54	1.1	1.57	310.2
824	1.0	.25	8.18	7.05	11,843	17.67	1.4	1.19	37.8
830	2	.25	8.20	7.12	11,604	17.63	0.6	0.85	100.6
835	3.0	.25	8.20	7.13	11,559	17.67	0.7	0.79	-111.4
841	4.0	.25	8.18	7.14	12,117	17.66	0.7	0.69	-127.5
847	5.0	.25	8.18	7.17	11,453	17.65	0.8	0.62	-134.9
853	6.0	.25	8.18	7.18	11,414	17.64	0.5	0.58	-140.8
859	7.0	.25	8.18	7.18	11,422	17.66	0.7	0.55	-143.9
905	8.0	.25	8.18	7.19	11,373	17.62	0.3	0.50	-146.7
911	9.0	.25	8.18	7.19	11,359	17.65	0.3	0.49	-148.5
916	10.0	.25	8.18	7.19	11,371	17.67	0.3	0.47	-149.8

Begin Purge: 0817 Method of Purging Slow purge (Peristaltic pump) Purged Dry? NO

End Purge 0925 Total Volume Purged: 10L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/11/01 / Sample Number (s): 385-SOS-112

Description of Purge Water: CLEAR, HYDROSULFIDE SMELL

Comments: none.

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/11/01

Monitoring Well No.: MOS-12 (Site 5) Chain of Custody No.: 4775

Personnel: Gregorio Ramirez / Mark Cruickshank

Organic Vapor Concentration TOC: — ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 15.19 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 8.28 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1017	Initial	.20	8.41	7.07	6,682	18.11	3.0	1.29	138.7
1021	1	.25	8.43	7.05	6,674	18.10	1.4	1.10	64.7
1025	2	.25	8.43	7.07	6,678	18.10	1.2	1.11	64.7
1029	3	.25	8.48	7.01	7,155	18.02	0.6	0.61	-88.1
1033	4	.25	8.45	6.98	7,279	18.02	0.5	0.59	-89.1
1037	5	.25	8.47	6.98	7,309	18.03	0.4	0.55	-95.0
1041	6	.25	8.47	6.98	7,308	18.03	0.3	0.53	-99.7
1045	7	.25	8.48	6.98	7,361	18.03	0.3	0.51	-104.7
1049	8	.25	8.48	6.98	7,388	18.03	0.3	0.49	-107.8

Begin Purge: 1017 Method of Purging Slow Purge (Peristal Pump) Purged Dry? no

End Purge: 1125 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☒ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/11/01 / 1100 Sample Number (s): 385-SOS-113

Description of Purge Water: Clear / Hydrosulfide smell.

Comments: none.

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/13/01

Monitoring Well No.: M05-B5-01 (Site 5) Chain of Custody No.: 4818

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: n/a ppm Breathing Zone: n/a ppm

Depth to Well Bottom: 12.1 ft. btoc

Depth to Water: 8.01 ft. btoc

Water Column: n/a ft.

Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: n/a gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1404	1	.15	8.27'	7.12	6290	21.5	58.9	1.02	-142.8
1411	2	.15	8.3'	7.09	6174	21.73	39.7	0.84	-140.6
1416	3	.25	8.42'	7.08	5934	20.58	29.8	0.55	-139.6
1420	4	.25	8.46'	7.07	5907	20.5	21.8	0.52	-138.9
1424	5	.25	8.47'	7.07	5867	20.48	11.6	0.51	-138.2
1428	6	.25	8.47'	7.06	5830	20.49	23.3	0.51	-137
1432	7	.25	8.46'	7.07	5744	20.40	9.7	0.49	-136.9
1436	8	.25	8.46'	7.07	5660	20.35	15.1	0.48	-137.1
1440	9	.25	8.46'	7.07	5593	20.27	20.7	0.47	-136.9
1444	10	.25	8.47'	7.07	5542	20.3	20.2	0.48	-136.8
1448	11	.25	8.47'	7.07	5470	20.06	4.6	0.49	-136
1452	12	.25	8.47'	7.07	5387	19.80	5.1	0.46	-135.2
1456	13	.25	8.47'	7.07	5341	19.69	3.5	0.46	-134.5

Begin Purge: 1359 Method of Purging Micro Purge-Peristaltic Pump Purged Dry? NO

End Purge: 1520 Total Volume Purged: 13 L How Measured? Grad. Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/13/01 1500 Sample Number (s): 385-S05-114

Description of Purge Water: slightly turbid, brownish yellow / slight odor

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/13/01

Monitoring Well No.: MOSHW-01 (Site 5) Chain of Custody No.: ~~4830~~ 4818

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: n/a ppm Breathing Zone: n/a ppm

Depth to Well Bottom: 14.8' ft. btoc Well Volume: ~~2-inch well~~ = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.45 ft. btoc

Water Column: n/a ft. Well Volume Calculation: n/a gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0841	1	.15	5.5	7.36	942	20.50	9.0	0.88	3.1
0846	2	.25	5.52'	7.39	796	21.09	6.0	0.58	.8
0850	3	.25	5.53'	7.39	789	21.24	5.2	0.56	2.3
0854	4	.25	5.53'	7.41	801	21.29	4.9	0.53	-2.9
0858	5	.25	5.53'	7.41	803	21.48	6.5	0.51	-7.1
0902	6	.25	5.53'	7.42	812	21.40	7.5	0.48	-12.8
0906	7	.25	5.53	7.42	817	21.33	2.4	0.46	-17.1
0910	8	.25	5.53'	7.42	821	21.26	3.5	0.45	-20.1

Begin Purge: 0833 Method of Purging Micro Purge-Peristaltic Pump Purged Dry? No

End Purge: 0910 Total Volume Purged: 8 liters How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☒ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 7/13/01 0915 Sample Number (s): 385-S05-115

Description of Purge Water: Slightly Cloudy

Comments: Collected Field Dup 385-S05-903

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/10/01

Monitoring Well No.: DO5-01 (Site 5) Chain of Custody No.: 4833

Personnel: Kirk S. Martin / Rick Bridman

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 70' ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 7.22 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1150	1	2.25	7.26	6.66	34,122	19.89	48.3	0.56	73.9
1154	2	.25	7.24	6.67	34,845	20.04	101.7	0.38	50.3
1158	3	.25	7.22	6.68	35,244	20.49	90.2	0.34	41.8
1202	4	.25	7.23	6.69	35,356	20.47	75.3	0.36	34.1
1206	5	.25	7.24	6.69	35,604	20.67	59.4	0.35	28.3
1210	6	.25	7.22	6.69	35,990	20.85	54.5	0.34	23.4
1214	7	.25	7.23	6.70	36,119	20.82	50.9	0.35	20.1
1218	8	.25	7.23	6.70	36,311	20.77	47.7	0.35	15.0

Begin Purge: 1140 Method of Purging Micro Purge (~~Peristaltic~~ Grundfos pump) Purged Dry? NO

End Purge: 1218 Total Volume Purged: 8L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/10/01 1225 Sample Number (s): 385-505-116

Description of Purge Water: slightly turbid; grayish; ~~tiny~~ no odor

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/10/01

Monitoring Well No.: D05-02 (Site 5) Chain of Custody No.: 4833

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 67' ft. btoc

Depth to Water: 7.50' ft. btoc

Water Column: _____ ft.

Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1514	1	~.25	7.57	6.92	38,645	21.86	9.0	0.60	-135.6
1518	2	.25	7.57	6.89	40,84	21.65	93.4	0.46	-126.2
1522	3	.25	7.55	6.88	41,127	21.61	81.5	0.31	-124.1
1526	4	.25	7.53	6.87	41,556	22.24	92.4	0.27	-120.4
1530	5	.25	7.53	6.87	41,607	22.37	74.3	0.32	-116.5
1534	6	.25	7.53	6.86	41,341	22.16	56.4	0.29	-113.4
1538	7	.25	7.53	6.85	41,365	22.24	43.1	0.29	-111.4
1542	8	.25	7.53	6.85	41,386	22.25	36.0	0.29	-106.0

Begin Purge: 1510 Method of Purging Micro Purge w/ Grundfos Pump Purged Dry? NO

End Purge: 1539 Total Volume Purged: 8L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/10/01 1600 Sample Number (s): 385-S05-117

Description of Purge Water: fairly clear; slight H_2S odor

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/10/01

Monitoring Well No.: D05-03 (Site 5) Chain of Custody No.: 4833

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 66.5' ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.25' ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1352	1	.25	5.30	6.85	42,637	21.03	12.4	1.82	-90.4
1356	2	.25	5.31	6.81	43,647	21.39	12.3	1.54	-87.2
1400	3	.25	5.28	6.8	44,309	22.01	13.4	1.09	-92.8
1404	4	.25	5.28	6.79	44,370	22.15	14.0	1.04	-93.4
1408	5	.25	5.28	6.78	44,854	22.51	14.3	0.88	-110.0
1412	6	.25	5.28	6.78	44,921	22.65	13.6	0.83	-113.8
1416	7	.25	5.28	6.77	45,189	22.75	12.5	0.72	-133.8
1418	8	.25	5.28	6.76	45,339	22.85	11.8	0.69	-140.3

Begin Purge: 1350 Method of Purging Micro Purge (Peristaltic Pump) Purged Dry? NO

End Purge: 1435 Total Volume Purged: 8L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/10/01 1430 Sample Number (s): 385-505-118

Description of Purge Water: slightly turbid, slight H_2S odor

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/18/01

Monitoring Well No.: M06-01 (Site 6) Chain of Custody No.: 4725

Personnel: MIKE B. / RICK E.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 9.5 ft.btoc Well Volume (2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft)

Depth to Water: 4.04 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1256	INITIAL	.15	4.15	7.28	834.0	25.79	0.8	1.69	-153.9
1302	1	.20	4.19	7.07	808.0	24.78	-0.2	0.51	-165.9
1307	2	.20	4.20	7.14	831.0	24.50	-0.4	0.43	-182.5
1312	3	.20	4.21	7.18	843.0	24.57	-0.5	0.38	-197.1
1317	4	.25	4.21	7.21	861.0	24.73	-0.4	0.36	-203.0
1322	5	.25	4.21	7.25	905.0	24.44	-0.5	0.41	-213.0
1326	6	.25	4.21	7.26	970.0	24.48	-0.4	0.34	-214.0
1331	7	.25	4.21	7.26	1115.0	24.77	-0.5	0.37	-213.7
1336	8	.25	4.21	7.26	1123.0	24.81	-0.4	0.35	-210.3

Begin Purge: 1256 Method of Purging Peristaltic Pump (Slow Purge) Purged Dry? NO

End Purge: 1336 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/18/01 @ 1345 Sample Number (s): 385-S06-017

Description of Purge Water: CLEAR, HEAVY H_2SO_4 ODOR, NO SHEEN

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/19/01

Monitoring Well No.: M06-02 (Site 6) Chain of Custody No.: 4727

Personnel: MIKE B. / RICK E

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 10.00 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.35 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0803	INITIAL	.20	4.35	7.66	1120	20.32	+0.1	6.38	176.3
0808	1	.20	4.56	8.08	836	21.17	+0.5	1.51	113.6
0812	2	.25	4.57	8.09	737.0	21.37	+0.1	1.53	111.5
0816	3	.25	4.61	8.08	713.0	21.52	0.0	1.08	109.7
0820	4	.25	4.62	8.03	667.0	21.60	+0.2	1.06	101.7
0824	5	.25	4.61	8.01	703.0	21.62	+0.4	0.92	91.4
0829	6	.25	4.61	8.00	700.00	21.64	+0.4	0.84	77.6
0833	7	.25	4.61	7.99	669.0	21.60	+0.2	0.75	64.2
0838	8	.25	4.61	7.99	651.0	21.68	+0.1	0.70	46.7

Begin Purge: 0803 Method of Purging (Slow Purge) PERISTALTIC PUMP Purged Dry? NO

End Purge: 0838 Total Volume Purged: 8 L How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☒ Duplicate (→ 305-S06-901) ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/19/01 @ 0845 Sample Number (s): 305-S06-018

Description of Purge Water: CLEAR, NO ODOR, NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/18/01

Monitoring Well No.: M06-03 (Site 6) Chain of Custody No.: 4725

Personnel: MIKE B. / RICKE

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 10 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.92 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1408	INITIAL	.15	5.30	7.12	9,151	24.22	+46.2	0.98	-215.0
1413 ~~1413~~	1	.20	5.34	7.11	9,474	23.82	+35.4	0.24	-221.6
1418	2	.25	5.37	7.13	9,536	23.8	+2.2	0.25	-220.7
1422	3	.25	5.37	7.20	9,177	23.78	+0.2	0.25	-200.8
1426	4	.25	5.38	7.24	8,899	23.77	+0.7	0.36	-187.5
1430	5	.25	5.45	7.24	8,682	23.41	0.0	0.27	-177.1
1434	6	.25	5.46	7.25	8,565	23.48	+0.2	0.33	-166.8
1438	7	.25	5.46	7.25	8,509	23.55	+0.6	0.33	-158.6
1442	8	.25	5.48	7.25	8,436	23.54	+0.7	0.31	-151.0

Begin Purge: 1408 Method of Purging (Slow Purge) Peristaltic Pump Purged Dry? NO

End Purge: 1442 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/18/01 @ 1450 Sample Number (s): 385-506-017

Description of Purge Water: Clear / no odor.

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/18/01

Monitoring Well No.: MD6 - 04 (Site 6) Chain of Custody No.: 4725

Personnel: MIKE B. / RICK E.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 9.00 ft.btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 3.55 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0934	INITIAL	.15	3.55	8.06	4273.0	23.28	20.5	1.79	218.4
0940	1	.15	3.72	7.72	4226.0	23.28	8.2	1.70	212.2
0947	2	.15	3.71	7.64	4247.0	23.30	4.8	1.34	221.3
0952	3	.20	3.74	7.66	4276.0	23.33	3.7	1.05	223.9
0956	4	.20	3.76	7.67	4275.00	23.35	3.9	1.02	229.0
1001	5	.20	3.77	7.68	4273.00	23.37	4.0	0.94	231.5
1005	6	.20	3.75	7.68	4294.0	23.34	4.2	1.08	233.3
1010	7	.20	3.75	7.69	4263.0	23.34	3.5	0.89	235.0
1014	8	.20	3.76	7.68	4251.0	23.30	3.0	0.94	236.9

Begin Purge: 0934 Method of Purging Peristaltic Pump (Slow Purge) Purged Dry? NO

End Purge: 1014 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/18/01 @ 1025 Sample Number (s): 385-506-020

Description of Purge Water: CLEAR, NO ODOR, NO SHEEN, SMALL RED PARTICULATE

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/18/01

Monitoring Well No.: M06-05 (Site 6) Chain of Custody No.: 4725

Personnel: MIKE B. / RICKE.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 10.00 ft.btoc Well Volume: (2-inch) well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.51 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1048	INITIAL	.15	4.51	7.62	4,228	24.09	+24.15	1.14	-117.0
1059	1	.15	4.66	7.60	4,217	23.13	+0.8	0.45	-148.0
1103	2	.20	4.70	7.61	4,289	22.51	+0.2	0.46	-153.0
1108	3	.20	4.76	7.62	4,281	22.55	+0.2	0.55	-158.6
1112	4	.20	4.74	7.63	4,611	22.61	0.0	0.51	-161.0
1116	5	.20	4.75	7.64	4,398	22.48	+0.5	0.50	-164.4
1121	6	.20	4.75	7.65	4,694	22.54	+0.5	0.34	-167.8
1125	7	.20	4.74	7.66	4,700	22.71	+0.3	0.30	-170.4
1129	8	.20	4.74	7.67	4,759	22.71	+0.2	0.36	-171.9
1134									

Begin Purge: 1049 Method of Purging Peristaltic Pump (slow purge) Purged Dry? NO

End Purge: 1129 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/18/01 @ 1140 Sample Number (s): 385-506-021

Description of Purge Water: CLEAR, H_2SO_4 ODOR, NO SHEEN

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/18/01

Monitoring Well No.: M06-06 (Site 6) Chain of Custody No.: 4725

Personnel: MIKE B / RICKE

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: — ppm

Depth to Well Bottom: 13.00 ft.btoc

Depth to Water: 4.20 ft. btoc

Water Column: N/A ft.

Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: N/A gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1200	INITIAL	.15	4.25	8.01	779.0	25.8	6.0	3.58	123.1
1208	1	.15	4.30	7.61	592.0	24.33	5.1	1.47	116.1
1212	2	.25	4.30	7.59	493.0	23.51	1.3	1.28	137.0
1216	3	.25	4.30	7.61	524.0	23.48	1.6	0.97	122.1
1220	4	.25	4.30	7.61	529.0	23.45	0.4	0.83	82.3
1224	5	.25	4.30	7.62	573.0	23.70	0.4	0.70	62.3
1228	6	.25	4.31	7.62	673.0	24.16	0.9	0.65	43.3
1232	7	.25	4.31	7.62	700.0	24.06	0.2	0.60	2.6
1236	8	.25	4.31	7.62	710.0	24.01	0.2	0.56	-10.2

Begin Purge: 1200 Method of Purging: Peristaltic Pump (Slow purge) Purged Dry? NO

End Purge: 1236 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/18/01 @ 1245 Sample Number (s): 385-506-022

Description of Purge Water: CLEAR / NO ODOR / NO SHEEN

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/25/01

Monitoring Well No.: MW-410-1 (Site 9) Chain of Custody No.: 4708

Personnel: L Genin / Rick E.

Organic Vapor Concentration TOC: 0.0 ppm Breathing Zone: 0.0 ppm

Depth to Well Bottom: 15' ft.btoc Well Volume (2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.32 ft. btoc

Water Column: ft. Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1126	0	0.25	5.32	7.86	628	22.54	37.7	5.94	148.5
1131	1	0.25	5.40	7.74	618	22.5	27.3	2.97	144.9
1136	2	0.25	5.41	7.71	652	22.36	17.0	2.68	146.4
1140	3	0.25	5.41	7.69	692	22.66	6.4	2.32	148.1
1145	4	0.25	5.41	7.66	736	22.58	2.8	2.21	149.1
1149	5	0.25	5.41	7.64	771	22.73	1.8	3.08	149.1
1153	6	0.25	5.41	7.63	798	22.64	2.1	2.19	152.3
1158	7	0.25	5.41	7.63	815	22.69	1.9	2.07	154.0
1204	8	0.25	5.41	7.62	841	22.75	2.02	2.01	156.9
1210	9	0.25	5.41	7.62	827	22.70	2.01	2.01	155.6

Begin Purge: 1126 Method of Purging Slow purge / peristaltic pump Purged Dry? NO

End Purge: 1210 Total Volume Purged: 9 L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☑ No QA/QC Sample

Date and Time of Sample Collection: 6/25/01 1210 Sample Number (s): 385-509-025

Description of Purge Water: Clear.

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/25/01

Monitoring Well No.: MW 410-2 (site 9) Chain of Custody No.: 4708

Personnel: Laura Genin

Organic Vapor Concentration TOC: 0.0 ppm Breathing Zone: 0.0 ppm

Depth to Well Bottom: 15' ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.45' ft. btoc

Water Column: 8.55 ft. Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0947	0		6.45			~~17.41~~			
0952	1	0.22	6.50	6.92	~~1130~~ 936	17.96	18.9	1.23	-95.8
0957	2	0.22	6.50	~~6.16~~ 6.92	995	18.07	23.8	1.11	-91.1
1002	3	0.22	6.50	6.92	1,010	17.99	32.0	0.93	-87.9
1006	~~3~~ 4	0.22	6.50	6.91	1,001	18.02	23.1	0.87	-84.8
1011	5	0.22	6.50	6.91	993.0	18.15	42.1	0.85	-82.4
1015	6	0.22	6.50	6.91	1,008	18.20	23.1	0.86	-81.1
1019	7	0.22	6.50	6.90	1,013	18.29	19.3	0.87	-80.1
1024	8	0.22	6.50	6.90	1,010	18.25	20.7	0.87	-79.3
1028	9	0.22	6.50	6.90	1,016	18.25	21.3	0.86	-78.7
End Purge									

Begin Purge: 0947 Method of Purging Slow purge/Peristaltic Pump Purged Dry? NO

End Purge 1028 Total Volume Purged: 9L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/25/01 10:30 Sample Number (s): 385-09-026

Description of Purge Water: Clear

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/26/01

Monitoring Well No.: MW410-3 (Site 9) Chain of Custody No.: 4714

Personnel: Genin / Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: ~~4.99~~ 15 ft. btoc

Depth to Water: 4.99 ft. btoc

Water Column: ft.

Well Volume: (2-inch) well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0845	0		4.99'	7.25	445	20.84	11.9	3.89	211.0
0850	1	0.25	5.05	7.50	470	21.41	5.1	1.40	197.8
0854	2	0.25	5.04	7.53	486.0	21.54	1.9	1.21	191.0
0859	3	0.25	5.04	7.53	496.0	21.79	0.7	1.02	182.6
~~0853~~	4	0.25	5.04	7.53	492.0	21.78	0.7	1.12	173.5
0907	5	0.25	5.04	7.53	500.0	21.79	0.1	0.98	167.6
0911	6	0.25	5.04	7.53	504.0	21.83	0.0	0.94	165.2
0915	7	0.25	5.04	7.53	504.0	21.91	0.3	0.97	162.2
0920	8	0.25	5.04	7.52	507.0	22.20	1.4	1.00	158.5
0924	9	0.25	5.04	7.51	512.0	22.25	1.8	1.04	156.5
0927	10	0.25	5.04	7.51	514	22.23	1.6	1.04	156.5

Begin Purge: 0845 Method of Purging peristaltic pump/slow purge Purged Dry? NO

End Purge: 0927 Total Volume Purged: 10 L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☒ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 6/26/01 0930 Sample Number (s): 385-509-027

Description of Purge Water: Clear

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/26/01

Monitoring Well No.: MW410-4 (Site 9) Chain of Custody No.: 4714

Personnel: LG / RE Laura Benin / Rick Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.0' ft. btoc Well Volume (2-inch well = water column x 0.163 gal/ft; 3-inch well = water column x 0.367 gal/ft; 4-inch well = water column x 0.652 gal/ft)

Depth to Water: 5.40 ft. btoc

Water Column: ft. Well Volume Calculation: gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1049	0		5.40	7.98	529	22.59	1.2	5.76	162.8
1053	1	0.25	5.41	7.93	505	22.36	0.6	4.39	170.9
1057	2	0.25	5.41	7.93	509	22.35	1.3	4.30	174.5
1101	3	0.25	5.42	7.95	507	22.32	0.6	4.03	178.6
1105	4	0.25	5.41	7.95	509	22.41	0.6	4.02	181.9
1109	5	0.25	5.41	7.95	510	22.46	0.5	3.95	185.1
1113	6	0.25	5.41	7.95	516	22.51	0.4	3.88	186.9
1117	7	0.25	5.41	7.96	516	22.46	0.4	3.83	189.2
1121	8	0.25	5.41	7.96	507	22.47	0.4	3.72	191.8
End Purge									

Begin Purge: 1049 Method of Purging Peristaltic Pump (slow purge) Purged Dry? NO

End Purge: 1121 Total Volume Purged: 8L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/26/01 11:25 Sample Number (s): 385509-028

Description of Purge Water: Clear

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/25/01

Monitoring Well No.: MO9-05 (Site 9) Chain of Custody No.: 4708

Personnel: LaTra G / Rick E

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: _____ ft.btoc

Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.07 ft. btoc

Water Column: 13.5 ft.

Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
~~10~~ 1304	0	—	6.07	7.88	491.0	21.68	0.7	4.26	132.7
1307	1	0.25	6.10	7.66	471	20.82	0.2	2.50	137.4
1312	2	0.25	6.10	7.64	468	20.77	0.2	1.97	139.7
1316	3	0.25	6.10	7.64	468	20.74	0.2	1.91	146.1
1320	4	0.25	6.10	7.65	469	20.84	0.3	1.91	150.4
1324	5	0.25	6.10	7.66	470	20.83	0.5	1.94	152.1
1328	6	0.25	6.10	7.66	470	20.76	0.4	1.98	152.9
1332	7	0.25	6.10	7.67	469	20.65	0.6	2.01	154.3
1336	8	0.25	6.10	7.67	469	20.66	0.6	2.04	155.6
1340	9	0.25	6.10	7.67	467	20.60	0.5	1.97	556.6

Begin Purge: 1304 Method of Purging Peristaltic pump/slow purge Purged Dry? NO

End Purge: 1340 Total Volume Purged: 9L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☑ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 6/25/01 13:45 Sample Number (s): 385-509-029
385-509-904-Duplicate

Description of Purge Water: clear, No odor

Comments: Dup. 6/25/01 14:10 Dupl Field 509-DGS-FD-4

Trip Blank
385-509-910- 509-DGS-TB-1

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/25/01

Monitoring Well No.: M09-06 (site 9) Chain of Custody No.: 4708

Personnel: Laura G / Rick E

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: _____ ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.59 ft. btoc

Water Column: 15' ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
14:37	0		6.59	7.79	320	21.78	3.6	6.38	154.8
14:41	0.1	0.25	6.61	7.69	317	21.82	1.1	4.95	158.4
14:45	2	0.25	6.62	7.69	316	21.72	0.7	4.75	160.6
14:50	3	0.25	6.61	7.69	316	21.70	0.7	4.64	163.1
14:55	4	0.25	6.61	7.70	316	21.60	0.1	4.48	165.0
15:01	5	0.25	6.61	7.70	316	21.53	0.0	4.39	167.0
15:07	6	0.25	6.61	7.70	315	21.43	0.2	4.32	168.1
15:12	7	0.25	6.61	7.70	315	21.29	0.1	4.25	170.1
15:16	8	0.25	6.61	7.70	313	21.24	0.2	4.22	169.7
15:20	9	0.25	6.61	7.70	313	21.21	0.1	4.21	173.9

Begin Purge: 14:37 Method of Purging: Peristaltic Pump / Slow Purge Purged Dry? NO

End Purge: 15:20 Total Volume Purged: 9L How Measured? Graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/25/01 15:25 Sample Number (s): 385-509-030

Description of Purge Water: Clear

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/26/01

Monitoring Well No.: D09-01 (Site 9) Chain of Custody No.: 4714

Personnel: Laura Genin, Rick Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 60' ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 8.24 ft. btoc

Water Column: ft. Well Volume Calculation: gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
01237	0	0	8.19						
1245	1		8.62	6.72	36,650	19.38	138.8	2.76	9.1
1250	2	0.25	8.57	6.74	37,181	19.58	137.1	1.74	15.7
1254	3	0.25	8.58	6.74	37,401	19.82	130.6	1.02	15.1
1258	4	0.25	8.61	6.74	37,556	20.11	131.1	0.71	5.7
1259	5	0.25	8.61	6.74	37,769	20.30	140.4	0.57	-5.7
1304	6	0.25	8.61	6.74	37,813	20.39	143.8	0.51	-13.4
1308	7	0.25	8.61	6.74	37,905	20.50	155.3	0.47	-20.4
1312	8	0.25	8.61	6.74	37,924	20.61	166.1 *	0.44	-25.4
1316	9	0.25	8.61	6.74	37,990	20.70	182.1	0.42	-29.6
1320	10	0.25	8.61	6.74	37,788	20.45	198.3	0.40	-31.8
1323	11	0.25	8.61	6.74	37,719	20.43	~~80~~ 210.0	0.39	-33.4
1327	12	0.25	8.61	6.75	37,680	20.40	* ~~226.0~~ 4.1	0.38	-34.6
1330	13	0.25	8.61	6.75	37,745	20.52	~~3.75~~ 3.9	0.37	-36.1
1334	14	0.25	8.61	6.75	37,745	20.47	3.4	0.37	-36.5
	15								
	16								
	17								
	18								

* out of stable sp

Begin Purge: 1237 Method of Purging grundfos pump / slow purge Purged Dry? NO

End Purge: 1350 Total Volume Purged: 14 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☑ No QA/QC Sample

Date and Time of Sample Collection: 6/25/01 @ 1335 Sample Number (s): ~~JE~~ 385-509-031

Description of Purge Water: Clear, colorless, odorless

Comments: @ 18L cleaned Turbidity meter.

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/6/01

Monitoring Well No.: M10-01 (Site 10) Chain of Custody No.: 4770

Personnel: Mike B. / Kirk M.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.00 ft.btoc Well Volume: 2 inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.30 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1310	INITIAL	.25	4.40	7.37	8,158	21.37	2.1	3.67	221.5
1312	1	.70	4.60	7.22	7,779	20.52	3.4	1.03	222.5
1314	2	.70	4.65	7.18	6,590	20.58	66.3	0.73	226.1
1318	3	.25	4.49	7.14	7,940	20.69	1.1	0.91	226.1
1322	4	.25	4.49	7.15	7,071	20.70	2.2	1.03	215.4
1326	5	.25	4.45	7.15	6,998	20.73	10.0	1.07	186.0
1330	6	.25	4.46	7.16	6,936	20.70	0.9	1.12	150.4
1334	7	.25	4.46	7.16	6,905	20.73	0.8	1.10	130.8
1338	8	.25	4.45	7.17	6,982	20.75	1.6	1.27	102.1

Begin Purge: 1310 Method of Purging Slow Purge Peristaltic Pump Purged Dry? NO

End Purge: 1338 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/6/01 @ 1345 Sample Number (s): 385-910-004

Description of Purge Water: CLEAR / NO ODOR / NO SHEEN

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/9/01

Monitoring Well No.: M10-02 (Site 10) Chain of Custody No.: 4769

Personnel: Mike B. / Kirk N.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 13.00 ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.18 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1044	INITIAL	.25	4.21	8.00	310	22.41	409	0.89	306.4
1048	1	.25	4.22	8.09	304	22.65	383	0.54	299.9
1052	2	.25	4.22	8.14	301	22.84	25.1	0.63	292.8
1056	3	.25	4.22	8.15	300	22.85	16.2	.68	285.7
1059	4	.25	4.22	8.18	301	23.01	9.8	0.70	277.9
1103	5	.25	4.22	8.19	291	23.03	7.5	.81	270.6
1107	6	.25	4.22	8.20	306.	23.05	5.0	0.81	265.9
1111	7	.25	4.22	8.21	309	23.11	5.8	0.82	260.2
1115	8	.25	4.22	8.20	310	23.18	3.8	0.88	256.9

Begin Purge: 1044 Method of Purging: Slow Purge - Peristaltic Pump / Grundfos Pump Purged Dry? NO

End Purge: 1115 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/9/01 @ 1120 Sample Number (s): 385-S10-005

Description of Purge Water: Yellow / No odor / No sheen

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/9/01

Monitoring Well No.: M10-03 (Site 10) Chain of Custody No.: 4769

Personnel: Mike B. / Kirk M.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 13.00 ft. btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 3.52 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0820	INITIAL	.25	3.52	6.88	139	20.40	157.8	2.83	386.5
0824	1	.25	3.60	8.80	138	20.95	143.8	-0.02	271.1
0828	2	.25	3.60	8.86	130	21.32	121.4	-0.01	258.7
0832	3	.25	3.60	8.80	126	21.68	139.4	0.01	253.8
0836	4	.25	3.60	8.74	124	21.66	123.7	0.02	251.3
0838	5	.25	3.60	8.68	124	21.85	132.0	0.04	253.2
0842	6	.25	3.60	8.56	123.	21.91	103.3	0.05	257.4
0846	7	.25	3.60	8.52	123	21.95	121.0	0.05	258.3
0850	8	.25	3.60	8.41	123	21.88	101.0	0.05	261.3
0854	9	.25	3.60	8.35	123	21.91	90.4	0.05	263.0
0858	10	.25	3.60	8.35	123	21.94	85.9	0.07	263.9

Begin Purge: 0820 Method of Purging: Slow Purge Peristaltic Pump / Grundfos Pump Purged Dry? NO

End Purge: 0850 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☒ Duplicate ☒ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 7/9/01 @ 0900 Sample Number (s): 385-S10-006

Description of Purge Water: Yellowish-Brown / No odor / No sheen

Comments: ~~None~~ Collect Duplicate Sample 385-S10-901 @ 0930

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/9/01

Monitoring Well No.: D10A-01 (Site 10) Chain of Custody No.: 4785

Personnel: Kirk Martin / Rick ~~Eatm~~ Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 70 ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.81 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1514	1	.5	5.91	8.01	515	21.75	6.6	5.92	187.2
1520	2	.15	5.85	6.69	42,446	22.26	32.4	3.39	239.1
1524	3	.25	5.91	6.61	53,850	~~22.26~~ 21.96	46.7	1.91	219.8
1528	4	.25	5.91	6.6	55,360	22.11	38.5	1.38	185.5
1532	5	.25	5.89	6.6	55,894	22.21	35.7	1.32	169
1536	6	.25	5.87	6.61	56,050	22.37	32.9	1.17	151.1
1540	7	.25	5.85	6.61	56,304	22.36	30.4	1.00	139.0
1544	8	.25	5.85	6.61	56,278	22.26	28.4	0.94	126
1548 ~~1548~~	9	.25	5.85	6.61	56,451	22.31	25.6	0.84	118.9

Begin Purge: 1514 Method of Purging SLOW PURGE Rediflo Pump Purged Dry? NO

End Purge: 1548 Total Volume Purged: 9 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 1600 7/9/01 Sample Number (s): 385-S10-007

Description of Purge Water: None

Comments: (Clear, Colorless, Odorless)

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/2/01

Monitoring Well No.: M11-01 (Site 11) Chain of Custody No.: 4715

Personnel: L Genin / R Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 9.5' ft. btoc

Depth to Water: 6.96 ft. btoc

Water Column: ft.

Well Volume: (2-inch) well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1330	0	0	6.96	7.17	1,100	27.59	8.9	2.22	91.4
1336	1	0.20	7.17	6.81	1,467	22.48	0.9	0.94	-92.7
1340	2	0.20	7.20	6.82	1,457	22.30	0.4	0.46	-112.6
1344	3	0.20	7.22	6.87	1,529	22.33	~~0.37~~ 0.4	0.37	-127
1350	4	0.20	7.20	6.93	1,621	22.73	0.7	0.40	-135.2
1356	5	0.20	7.20	6.95	1,645	22.60	1.7	0.37	-136.6
1401	6	0.20	7.20	6.98	1,669	22.67	2.2	0.37	-137.6
1407	7	0.20	7.20	7.00	1,676	22.54	4.5	0.36	-138.1
1413	8	0.20	7.20	7.01	1,673	22.56	3.6	0.36	-138.6
End Purge									

Begin Purge: 1330 Method of Purging Peristaltic pump (Slow purge) Purged Dry? NO

End Purge: 1413 Total Volume Purged: 8 L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/2/01 1430 Sample Number (s): 385-511-600

Description of Purge Water: Clear / odorless

Comments: none.

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/2/01

Monitoring Well No.: M11-02 (Site 11) Chain of Custody No.: 4715

Personnel: R Erdman L Gunin

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: _____ ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.98 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
~~1502~~	0	0	~~0~~ 5.98	6.92	988	25.90	4.2	2.25	129.8
1503	1	0.20	6.16	6.90	990	25.84	4.0	2.02	137.5
1506	2	0.20	6.17	6.88	1,005	25.97	3.0	1.68	155.1
1514	3	0.20	6.18	6.88	998	25.76	2.3	1.54	170.1
1519	4	0.20	6.18	6.87	992	25.61	2.3	1.33	180.1
1524	5	0.25	6.23	6.87	990	25.33	1.9	1.29	190.6
1528	6	0.25	6.27	6.87	979	25.06	1.8	1.20	196.9
1532	7	0.25	6.30	6.87	981	24.97	1.1	1.15	202.8
1536	8	0.25	6.30	6.87	982	24.98	2.1	1.11	207.9

Begin Purge: 1502 Method of Purging Slow Purge Peristaltic Pump Purged Dry? No

End Purge: 1536 Total Volume Purged: 8 L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/2/01 1545 Sample Number (s): 385-S11-007

Description of Purge Water: Clean / odorless

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/3/01

Monitoring Well No.: M11-03 (Site 11) Chain of Custody No.: 4767

Personnel: Gary T / Gregorio R.

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 6 ppm

Depth to Well Bottom: 9.00 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.59 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
~~1131~~ 1128	Initial	0.25	5.64	7.42	1,320	23.78	9.7	0.81	102.7
1132	1	0.25	5.64	7.40	1,314	23.85	9.3	0.63	119.0
1137	2	0.25	5.64	7.41	1,284	23.80	7.3	0.50	137.0
1142	3	0.25	5.64	7.40	1,248	23.82	1.7	0.39	144.7
1146	4	0.25	5.64	7.41	1,240	23.89	1.1	0.30	146.8
1150	5	0.25	5.65	7.41	1,223	23.77	0.8	0.28	147.0
1154	6	0.25	5.65	7.41	1,214	23.79	0.7	0.27	147.0
1158	7	0.25	5.65	7.40	1,209	23.78	0.7	0.28	147.0
1202	8	0.25	5.65	7.40	1,203	23.81	0.7	0.23	147.0
~~1206~~									
~~1212~~									

Begin Purge: 1128 Method of Purging: Slow Purge (Peristaltic Pump) Purged Dry? No

End Purge: 1230 Total Volume Purged: 8L How Measured? 1000mL Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/3/01 / 1210 Sample Number (s): 385-S11-008

Description of Purge Water: Water is Clear / no smell

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/3/01

Monitoring Well No.: MW-04 (Site 11) Chain of Custody No.: 4767

Personnel: Gary T / Gregorio R.

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 11.73 ft.btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.76 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1255	Initial	0.25	6.81	7.07	894	25.27	3.9	1.16	239.0
1257	1	0.25	6.91	7.08	882	25.25	2.3	1.06	238.0
1301	2	0.25	6.91	7.08	877	25.17	1.5	0.99	237.0
1305	3	0.25	6.91	7.08	882	25.18	1.3	0.97	235.9
1309	4	0.25	6.91	7.10	873	25.18	1.1	0.96	233.7
1313	5	0.25	6.92	7.10	873	25.10	1.2	0.93	232.4
1317	6	0.25	6.92	7.10	868	25.00	0.9	0.90	230.0
1322	7	0.25	6.92	7.11	862	24.97	1.1	0.83	228.0
1326	8	0.25	5.92	7.11	871	25.13	1.7	0.97	225.9

Begin Purge: 1255 Method of Purging: Slow Purge (Peristaltic pump) Purged Dry? No

End Purge: 1327 Total Volume Purged: 8 Liters How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/3/01 / 1330 Sample Number (s): 385-S11-009

Description of Purge Water: Water is clear, colorless, and has an unknown odor

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/3/01

Monitoring Well No.: M11-05 (Site 11) Chain of Custody No.: 4767

Personnel: Gary T. / Gregorio R.

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 6 ppm

Depth to Well Bottom: 14.0 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.80 ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0943	Initial	0.25	5.97	7.33	2,590	22.74	10.6	0.48	127.0
0947	1	0.25	5.98	7.39	2,480	22.75	5.9	0.40	139.0
0951	2	0.25	6.00	7.43	2,410	22.59	4.9	0.37	145.0
0955	3	0.25	6.00	7.46	2,387	22.51	2.5	0.34	150.0
0959	4	0.25	6.00	7.49	2,379	22.48	2.1	0.34	154.0
1004	5	0.25	6.01	7.51	2,370	22.44	1.6	0.32	158.2
1007	6	0.25	6.01	7.53	2,378	22.59	1.2	0.30	161.0
1012	7	0.25	6.01	7.55	2,367	22.53	1.1	0.28	163.0
1017	8	0.25	6.01	7.	2,368	22.53	1.1	0.28	165.0

Begin Purge: 0943 Method of Purging Slow Purge (Peristaltic Pump) Purged Dry? NO

End Purge: 1017 Total Volume Purged: 8L How Measured? 100mL graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/3/01 (1020) Sample Number (s): 385-311-010

Description of Purge Water: Water is clear / no smell

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/3/01

Monitoring Well No.: M11-06 (Site 11) Chain of Custody No.: 4767

Personnel: Gary T. / Gregorio R.

Organic Vapor Concentration TOC: ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 14.0 ft.btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.09 ft. btoc

Water Column: ft. Well Volume Calculation: gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0827	Initial	0.25	6.31	7.65	1,400	20.47	6.0	0.69	93.9
0831	1	0.25	6.36	7.63	1,048	20.70	2.7	0.74	94.6
0836	2	0.25	6.39	7.65	1,029	20.75	1.9	0.58	90.7
0840	3	0.25	6.40	7.68	1,028	20.73	2.0	0.49	92.7
0844	4	0.25	6.41	7.70	1,058	20.72	1.1	0.45	95.6
0848	5	0.25	6.41	7.70	999	20.73	1.2	0.49	95.9
0852	6	0.25	6.42	7.71	998	20.72	1.4	0.49	95.9
0856	7	0.25	6.42	7.72	1,028	20.71	0.9	0.47	97.5
0900	8	0.25	6.42	7.72	1,029	20.71	0.9	0.47	97.5

Begin Purge: 0827 Method of Purging Slow Purge (Peristaltic Pump) Purged Dry? no.

End Purge: 0900 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/3/01 / 0900 Sample Number (s): 385-S11-011

Description of Purge Water: Light yellowish / no smell.

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/3/01

Monitoring Well No.: ~~MW-01~~ DW-01 (Site 11) Chain of Custody No.:

Personnel: Gavin / Rick Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.41 ft. btoc

Water Column: ft. Well Volume Calculation: gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1158	0	Begin Purge							
1208	1	0.25	5.65	7.24	646	24.53	5.2	1.55	115
1207	2	0.25	5.59	6.35	48,450	24.70	106.7	0.75	182.1
12:13	3	0.25	5.59	6.42	53,129	29.36	77.3	0.51	187.9
12:18	4	0.25	~~5.65~~ 5.59	6.40	51,429	23.65	106.1	0.40	198.6
12:22	5	0.25	5:59	6.43	53,412	25.44	105.0	0.39	203.1
12:26	6	0.25	5.59	6.43	52,178	24.79	67.9	0.38	211.5
12:30	7	0.25	5.59	6.42	52,613	24.74	48.6	0.32	214.4
12:34	8	0.25	5.59	6.43	52,877	25.32	41.3	0.32	223.3
12:39	9	0:25	5.59	6.44	52,335	25.00	92.5	1.05	233.9
12:43	10	0.25	5.61	6.43	52,462	25.26	50.4	0.55	238.4
12:47	11	0.25	5.56	6.44	52,817	25.79	49.6	0.38	242.7
12:51	12	0.25	5.56	6.44	52,514	25.47	56.0	0.36	249.5

Begin Purge: 1158 Method of Purging grundfos pump / slow purge Purged Dry? No

End Purge: 12:51 Total Volume Purged: 12L How Measured? graduated cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/3/01 1300 Sample Number (s): 385-S11-012

Description of Purge Water: ~~Sit~~ Cloudy Yellow

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: M12-01 (Site 12) Chain of Custody No.: 4832

Personnel: Kirk S. Martin / Rick Evelman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: ~~5.68~~ 14.8' ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.68 ft. btoc

Water Column: n/a ft. Well Volume Calculation: n/a gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0843	1	.15	5.72	7.4	1,167	21.24	13.9	2.25	327.0
0848	2	.25	5.73	7.41	1,184	22.05	7.1	2.04	323.8
0852	3	.25	5.73	7.42	1,205	22.35	4.4	1.86	319.6
0856	4	.25	5.73	7.44	1,214	22.31	2.8	1.78	315.7
0900	5	.25	5.73	7.43	1,217	22.29	2.5	1.72	309
0904	6	.25	5.73	7.43	1,215	22.30	3.8	1.69	306.3
0908	7	.25	5.73	7.43	1,206	21.95	4.1	1.74	301
0912	8	.25	5.73	7.43	1,208	22.07	2.5	1.75	296.6

Begin Purge: 0830 Method of Purging Micro Purge - Peristaltic Pump Purged Dry? No

End Purge: 0912 Total Volume Purged: 8 liters How Measured? Grad. Cylinder

QA/QC Sample Collected Here? ☑ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 0930 Sample Number (s): 385-S12-001

Description of Purge Water: Clear / odorless / no sheen

Comments: Field Dup collected: Sample # 385-S12-901

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: M12-02 (Site 12) Chain of Custody No.: 4832

Personnel: Kirk S. Martin / Rick Fridman

Organic Vapor Concentration / TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 14.7 ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.91' ft. btoc

Water Column: n/a ft. Well Volume Calculation: n/a gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1034	1	.15	5.1	7.7	1120	20.52	237.5	0.70	-149.9
1041	2	.15	5.11	7.73	1048	21.08	136.6	0.56	-144.1
1046	3	.25	5.16	7.73	995	21.27	88.9	0.44	-153.9
1050	4	.25	5.2	7.76	888	21.57	83.9	0.43	-154.8
1054	5	.25	5.2	7.78	731	21.94	64.4	0.44	-144.9
1058	6	.25	5.21	7.79	634	21.99	67.1	0.48	-137
1102	7	.25	5.17	7.81	518.	22.06	74.9	0.44	-133.5
1106	8	.25	5.2	7.79	461	22.08	85.6	0.46	-126.8

Begin Purge: 1030 Method of Purging: MicroPurge Peristaltic Pump Purged Dry? No

End Purge: 1106 Total Volume Purged: 8 liters How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 1115 Sample Number (s): 385-512-002

Description of Purge Water: ~~Turbid brownish~~ clear / sl. odor /

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: M12-03 (Site 12) Chain of Custody No.: 4832

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 14.0' ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.65' ft. btoc

Water Column: N/a ft. Well Volume Calculation: n/a gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1212	1	.15	4.69	7.36	958	22.14	797.4	1.08	-25
1218	2	.25	4.71	7.37	904	22.58	609.4	0.73	-13.2
1222	3	.25	4.71	7.41	790	22.62	389.1	0.63	-11.5
1226	4	.25	4.72	7.46	665	22.98	187.0	0.66	-9.0
1230	5	.25	4.72	7.47	627	23.22	134.0	0.77	-2.7
1234	6	.25	4.72	7.46	619	23.12	127.4	0.79	2.5
1238	7	.25	4.72	7.47	610	23.23	127.3	0.76	6.4
1242	8	.25	4.72	7.46	609	23.42	127.3	0.81	10.8

Begin Purge: 1206 Method of Purging MicroPurge-Peristaltic Pump Purged Dry? No

End Purge: 1250 Total Volume Purged: 8L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 1300 Sample Number (s): 385-512-003

Description of Purge Water: Turbid - brownish w/ black suspended solids

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/16/01

Monitoring Well No.: M12-04 (Site 12) Chain of Custody No.: 4832

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 14' ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.39' ft. btoc

Water Column: n/a ft. Well Volume Calculation: n/a gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1334	1	.15	4.44'	7.39	759	22.45	314.4	0.81	54.7
1338	2	.25	4.47	7.4	698	22.22	139.3	0.55	54.6
1342	3	.25	4.47	7.33	615	22.55	64.1	0.55	54.9
1346	4	.25	4.47	7.28	587	22.7	39.6	0.67	56.2
1350	5	.25	4.47	7.27	591	22.98	29.5	0.70	56.6
1354	6	.25	4.47	7.26	598	22.82	17.8	0.67	58.0
1358	7	.25	4.47	7.27	604	22.77	13.2	0.63	58.7
1402	8	.25	4.47	7.27	619	22.92	8.8	0.57	59.2
1406	9	.25	4.47	7.27	630	22.84	8.5	0.57	59.8

Begin Purge: 1325 Method of Purging MicroPurge-Peristaltic Pump Purged Dry? Y/O

End Purge: 1406 Total Volume Purged: 9 liters How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/16/01 1415 Sample Number (s): 385-512-004

Description of Purge Water: Clear - odorless

Comments:

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/11/01

Monitoring Well No.: D12-01 (Site 12) Chain of Custody No.: 4816

Personnel: Kirk S. Martin / Rick Erdman

Organic Vapor Concentration TOC: _____ ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 70.2' ft. btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 6.32' ft. btoc

Water Column: _____ ft. Well Volume Calculation: _____ gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft. btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0915	1	~.25	6.62'	6.63	49,745	19.4	12.1	3	129.3
0919	2	.25	6.61'	6.61	49,622	19.5	33.3	2.7	95.0
0923	3	.25	6.63	6.59	49,756	19.65	25.6	2.39	66.5
0927	4	.25	6.63	6.59	50,099	20	22.1	2.12	52.1
0931	5	.25	6.66	6.59	50,171	20.08	23.2	1.98	43.5
0935	6	.25	6.66	6.59	50,273	20.19	22.5	1.82	28.8
0939	7	.25	6.66	6.59	49,985	19.92	19.0	1.73	18.9
0943	8	.25	6.66	6.59	50,191	20.13	20.8	1.63	9.3

Begin Purge: 0905 Method of Purging: Micro Purge (~~Peristaltic~~ Grundfos Pump) Purged Dry? NO

End Purge: 0945 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 7/11/01 0950 Sample Number (s): 385-512-005

Description of Purge Water: Clear / odorless

Comments: _____

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/27/01

Monitoring Well No.: ~~MT3~~ MNOR-1 (Site ~~21~~ 13) Chain of Custody No.: 4720

Personnel: MIKE B. & GREGORIO R.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.00 ft.btoc

Depth to Water: 5.16 ft. btoc

Water Column: N/A ft.

Well Volume: (2) inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1241	INITIAL	.25	5.54	7.15	1,134	21.15	74.3	4.44	38.2
1245	1	.25	5.75	6.99	1,135	20.84	66.8	1.03	-22.8
1249	2	.75	6.25	6.99	1,139	20.66	74.6	0.60	-31.3
1252	3	.75	6.33	6.98	1,137	20.67	64.4	0.52	-34.0
1256	4	.25	6.08	6.98	1,142	20.27	59.4	0.54	-39.0
1300	5	.25	6.04	6.98	1,140	20.24	58.9	0.53	-42.9
1304	6	.25	6.00	6.98	1,137	20.25	40.6	0.46	-45.3
1308	7	.25	6.00	6.98	1,138	20.34 ~~20.26~~	15.26 ~~22.4~~	0.49	-47.0
1312	8	.25	6.00	6.98	1,137	20.29	13.20	0.47	-47.4
1314	9	.25	6.00	6.98	1,136	20.30	10.00	0.45	-46.8

Begin Purge: 1241 Method of Purging REDI FLOW PUMP / Slow Purge PERISTALTIC PUMP Purged Dry? NO

End Purge: 1312 Total Volume Purged: 8 L How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/27/01 @ 1315 Sample Number (s): 385-S13-001

Description of Purge Water: YELLOWISH / SLIGHT PETROLEUM ODOR / NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/28/01

Monitoring Well No.: MW08-2 (Site 13) Chain of Custody No.: 4701

Personnel: MIKE B. / BREZOSZIN R.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 13.46 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.92 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1031	INITIAL	.25	5.00	8.09	360	22.84	47.0	6.12	167.6
1035	1	.25	5.00	7.78	408	21.97	24.1	3.43	194.6
1039	2	.25	5.00	7.71	419	21.95	21.4	2.97	196.0
1043	3	.25	5.00	7.69	476	22.01	14.0	2.53	192.1
1047	4	.25	5.00	7.66	513	21.81	11.8	2.56	186.4
1051	5	.25	5.00	7.63	564	21.79	8.7	2.29	182.3
1055	6	.25	5.00	7.59	663	21.78	15.7	1.78	183.0
1059	7	.25	5.00	7.60	637	21.60	11.0	2.15	180.0
1103	8	.25	5.00	7.59	658	21.62	8.6	2.19	171.4
1107	9	.25	5.00	7.59	676	21.62	9.2	2.20	170.5

Begin Purge: 1031 Method of Purging Peristaltic Pump (Slow Purge) Purged Dry? NO

End Purge: 1107 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/28/01 @ 1115 Sample Number (s): 385-513-002

Description of Purge Water: CLEAR / SMALL RED PARTICULATE / NO ODOR /

Comments: NO SHEEN

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TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 7/19/01

Monitoring Well No.: MW0L-2 (Site 13) Chain of Custody No.: 4647

Personnel: MIKE B. / GREGORIO R.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 13.50 ft.btoc Well Volume (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.10 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1358	INITIAL	.25	5.17	8.04	413	20.96	73.8	4.87	106.9
1402	1	.25	5.17	7.81	458	21.22	30.9	3.07	105.3
1406	2	.25	5.17	7.70	589	21.57	14.2	2.12	93.8
1410	3	.25	5.17	7.69	645	21.69	12.4	2.48	86.3
1414	4	.25	5.17	7.67	660	21.64	9.7	2.02	83.1
1418	5	.25	5.17	7.66	674	21.64	9.1	2.01	79.1
1422	6	.25	5.17	7.66	684	21.62	8.7	2.06	76.7
1426	7	.25	5.17	7.65	688	21.67	6.8	2.14	73.5
1430	8	.25	5.17	7.65	695	21.67	6.9	2.18	71.1

Resampling well for TPH-e and SVOCs

Begin Purge: 1358 Method of Purging Peristaltic Pump (slow-purge) Purged Dry? NO

End Purge: 1430 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 7/19/01 @ 1435 Sample Number (s): 385-S13-002A

Description of Purge Water: Clear / small reddish particulate / No odor / No sheen

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/28/01

Monitoring Well No.: MWOR-3 (Site 13) Chain of Custody No.: 4701

Personnel: MIKE B. / GREGORIO R.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 14.86 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.34 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0857	INITIAL	.25	4.71	7.50	634	22.40	44.5	3.28	162.6
0901	1	.25	4.74	7.45	631	22.61	61.6	2.54	158.1
0905	2	.25	4.74	7.47	604	22.86	42.6	3.09	151.7
0909	3	.25	4.74	7.46	634	23.14	10.8	2.92	150.9
0913	4	.25	4.75	7.43	640	23.17	4.2	2.54	150.3
0917	5	.25	4.75	7.43	642	23.34	2.1	2.42	145.7
0921	6	.25	4.75	7.43	646	23.36	1.7	2.32	149.0
0925	7	.25	4.75	7.42	650	23.42	1.3	2.31	142.6
0929	8	.25	4.75	7.42	649	23.36	1.2	2.35	143.5

Begin Purge: 0857 Method of Purging Peristaltic Pump (Slow Purge) Purged Dry? NO

End Purge: 0929 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☒ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☐ No QA/QC Sample

Date and Time of Sample Collection: 6/28/01 @ 0940 Sample Number (s): 385-513-003

Description of Purge Water: GREYISH-BLACK / SMALL BLACK PARTICULATE

Comments: ~~None~~ SLIGHT ODOR / NO SHEEN
DUPLICATE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/29/01

Monitoring Well No.: MNOR-4 (Site 13) Chain of Custody No.: 4765

Personnel: MIKE B. / GREGORIO R.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: 15.00 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 3.57 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1151	INITIAL	.25	3.99	7.50	443	24.28	19.2	4.97	265.6
1155	1	.25	4.01	6.69	327	22.97	21.9	2.11	28.1
1159	2	.25	4.02	6.62	323	22.79	19.6	1.94	282.7
1203	3	.25	4.03	6.52	328	22.50	15.4	1.72	286.0
1207	4	.25	4.03	6.47	325	22.60	11.4	1.65	289.0
1211	5	.25	4.03	6.46	325	22.36	8.8	1.54	292.2
1215	6	.25	4.03	6.45	325	22.36	5.9	1.53	294.4
1219	7	.25	4.03	6.45	325	22.31	8.8	1.43	297.0
1233	8	.25	4.03	6.44	327	22.26	5.2	1.43	299.1
~~1237~~									

Begin Purge: 1151 Method of Purging PERISTALTIC PUMP (Slow Purge) Purged Dry? NO

End Purge: 1233 Total Volume Purged: 8 L How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/29/01 Sample Number (s): 385-513-004

Description of Purge Water: CLEAR / SMALL BLACK PARTICULATE / NO ODOR / NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/29/01

Monitoring Well No.: MW0R-5 (Site 13) Chain of Custody No.: 4765

Personnel: MIKE B. / GREGORIO R.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.00 ft.btoc Well Volume (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 4.35 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1251	INITIAL	.25	4.38	7.01	602	21.72	1.8	2.5	230.4
1255	1	.25	4.39	6.92	597	21.71	1.9	1.50	293.0
1259	2	.25	4.40	6.89	592	21.56	1.3	1.16	242.9
1303	3	.25	4.41	6.88	585	21.62	9.0	1.10	243.8
1307	4	.25	4.43	6.90	581	21.51	5.9	1.18	243.6
1311	5	.25	4.43	6.91	577	21.45	2.0	1.07	243.2
1315	6	.25	4.43	6.91	574	21.42	2.6	1.03	242.6
1319	7	.25	4.44	6.91	572	21.40	3.0	1.01	241.8
1323	8	.25	4.44	6.92	571	21.46	3.0	0.92	240.9

Begin Purge: 1251 Method of Purging Peristaltic Pump (Slow Purge) Purged Dry? NO

End Purge: 1323 Total Volume Purged: 8 L How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/29/01 @ 1330 Sample Number (s): 385-515-005

Description of Purge Water: CLEAR / NO ODOR / NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/27/01

Monitoring Well No.: M13-06 (Site 13) Chain of Custody No.: 4728

Personnel: MIKE B. & GREGORIO R.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 14.22 ft.btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.31 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1035	INITIAL	.25	5.40	7.21	1,039	20.18	273.0	6.05	30.1
1039	1	.25	5.42	7.29	1,024	20.41	75.7	1.47	-48.2
1043	2	.25	5.42	7.28	1,005	20.28	74.9	0.93	-57.4
1047	3	.25	5.42	7.28	990	20.37	14.8	0.79	-63.4
1051	4	.25	5.42	7.30	976	20.53	3.6	0.65	-67.5
1055	5	.25	5.43	7.31	965	20.44	5.9	0.62	-68.7
1059	6	.25	5.43	7.31	957	20.50	4.0	0.56	-70.0
1103	7	.25	5.44	7.32	950	20.54	2.7	0.53	-73.3
1107	8	.25	5.43	7.32	949	20.64	2.8	0.52	-75.2

Begin Purge: 1035 Method of Purging REDI FLOW PUMP / ~~PERISTALTIC PUMP~~ Slow Purge Purged Dry? NO

End Purge: 1107 Total Volume Purged: 1115 How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/27/01 @ 1115 Sample Number (s): 385-513-006

Description of Purge Water: YELLOWISH-BROWN / SLIGHT ODOR / NO SHEEN

Comments: NONE

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/27/01

Monitoring Well No.: M13-07 (site 13) Chain of Custody No.: 4728

Personnel: MIKE B. & GREGORIO R.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: ~~0~~ ppm

Depth to Well Bottom: 12.30 ft.btoc Well Volume: (2)-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 5.20 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1155	INITIAL	.25	5.45	6.64	1,547	21.46	789	3.56	-25.7
1159	1	.25	6.10	6.48	1,773	20.84	55.9	1.06	-95.1
1203	2	.25	6.70	6.49	1,700	~~20.86~~	60.2	1.00	-100.1
1207	3	.15	8.50	6.49	1,757	20.91	55.8	1.03	-98.2
~~1211~~	~~4~~	WATER LEVEL DROPPING TOO FAST							
		PURGED DRY. WILL SAMPLE LATER							
		~~NO~~							
		RETURN TO COLLECT VOAS ONLY @ 1350							
		WELL DID NOT RECOVER 80% OR MORE							
6/28/01 ~~0800~~	N/A	N/A	5.05	~~6.66~~	~~768~~	~~20.80~~	49	~~3.33~~	193.1
			5.147	6.58	1,816	22.90	206.0	5.67	-38.3

Begin Purge: 1155 Method of Purging REDI FLOW PUMP / (Slow Purge) PERISTALTIC PUMP Purged Dry? YES

End Purge: 1215 Total Volume Purged: 8 L How ~~Measured~~? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/27/01 @ 1350 Sample Number (s): 385-513-007 (VOAS ONLY)

Description of Purge Water: OREYISH-BLACK / BLACK PARTICULATE / STRONG

Comments: PETROLEUM ODOR

RETURNED 6/28/01 TO COLLECT REMAINING SAMPLES (385-513-007A @ 0800)

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/28/01

Monitoring Well No.: M13-08 (Site 13) Chain of Custody No.: 4701

Personnel: Mike B / Gregorio R.

Organic Vapor Concentration TOC: Ø ppm Breathing Zone: Ø ppm

Depth to Well Bottom: _____ ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 3.11 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1252	INITIAL	.25	4.10	6.97	819	21.05	250	0.76	199.2
1256	1	.25	4.20	6.97	807	20.99	10.5	0.71	201.2
1300	2	.25	4.20	6.96	747	21.11	61.7	0.66	203.8
1304	3	.25	4.20	6.96	799	21.15	253	0.64	204.0
1308	4	.25	4.20	6.96	707	21.04	3.6	0.56	204.8
1312	5	.25	4.20	6.96	702	21.03	5.1	0.50	205.0
1316	6	.25	4.20	6.96	702	21.01	3.4	0.46	204.5
1320	7	.25	4.20	6.96	700	20.93	4.7	0.44	204.4
1324	8	.25	4.20	6.96	698	20.91	3.7	0.43	204.1

Begin Purge: 1252 Method of Purging Peristaltic Pump (Slow Purge) Purged Dry? NO

End Purge: 1324 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/28/01 @ 1330 Sample Number (s): 385-513-008

Description of Purge Water: CLEAR / NO ODOR / NO SHEEN

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/28/01

Monitoring Well No.: M13-09 (Site 13) Chain of Custody No.: 4701

Personnel: Mike B. / Gregorio R.

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 12.67 ft.btoc Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 3.33 ft. btoc

Water Column: N/A ft. Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1146	INITIAL	.25	3.55	6.51	776	22.57	52.7	2.64	194.1
1150	1	.25	3.79	6.50	806	22.33	27.0	2.03	190.0
1152	2	.70	4.32	6.15	803	22.74	34.3	0.61	224.9
1153	3	.70	4.87	6.15	796	23.21	72.1	0.63	226.2
1154	4	.70	5.30	6.15	788	23.46	126.8	0.68	227.1
1156	5	.70	5.88	6.17	785	23.55	26.9	0.68	227.1
1200	6	.25	5.51	6.20	776	22.76	6.9	0.75	228.2
1204	7	.25	5.50	6.20	765	22.47	4.2	0.72	226.9
1208	8	.25	5.50	6.21	759	22.30	4.6	0.69	220.0

Begin Purge: 1146 Method of Purging Peristaltic Pump (Slow Purge) Purged Dry? NO

End Purge: 1208 Total Volume Purged: 8 l How Measured? Graduated Cylinder

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/28/01 @ 1215 Sample Number (s): 385-513-009

Description of Purge Water: Yellowish / Slight Solvent Odor / No Sheen

Comments: None

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/27/01

Monitoring Well No.: MW-1 (Site 13) Chain of Custody No.: 4728

Personnel: Mike B. & Gregorio Ramirez

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 15.50 ft.btoc

Depth to Water: 5.64 ft. btoc

Water Column: N/A ft.

Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Well Volume Calculation: N/A gal

Time	Vol. Purged (Liters/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
0943	INITIAL	.25	5.80	6.76	946	21.8	35.5	3.43	-97.7
0947	1	.25	6.61	6.59	912	22.11	46.9	1.36	-110.0
0950	2	.75	7.65	6.58	863	22.37	37.8	0.96	-113.6
0951	3	.75	8.30	6.57	911	22.37	40.8	0.87	-115.0
0952	4	.75	9.40	6.56	925	22.26	137.7	0.78	-116.1
0956	5	.20	9.70	6.56	935	21.74	233.2	0.79	-117.0
~~1002~~	~~6~~	~~.15~~	~~9.45~~						
~~1009~~	~~7~~	~~.15~~							
~~1015~~	~~8~~	~~.15~~							
~~1022~~	~~9~~	~~.15~~							

WATER LEVEL DROPPING TOO FAST, PURGED WELL DRY. WILL SAMPLE @ A LATER TIME

COLLECT SAMPLE 385-S13-010 (VOAS ONLY)
WELL HAS NOT RECOVERED 80% OR MORE

~~6/28/01 800~~

6/28/01 0740 N/A N/A 5.65 6.26 768 20.80 49 3.33 193.1

Begin Purge: 0943 Method of Purging REDI FLOW PUMP / (Slow Purge) PERISTALTIC PUMP Purged Dry? ~~NO~~ YES

End Purge: 1022 Total Volume Purged: 9 L How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/27/01 @ 1400 Sample Number (s): 385-S13-010 (VOAS ON

Description of Purge Water: GREYISH BLACK / HEAVY BLACK PARTICULATE /

Comments: HEAVY PETROLEUM ODOR / SHEEN

RETURNED 6/28 TO COLLECT REMAINING BOTTLE SET. (385-S13-010A @ 0740)

Continue

TETRA TECH EM INC.
MONITORING WELL SAMPLING SHEET

Date: 6/29/01

Monitoring Well No.: D13-01 (Site 13) Chain of Custody No.: 4765

Personnel: MIKE B. / GREGORIO R

Organic Vapor Concentration TOC: 0 ppm Breathing Zone: 0 ppm

Depth to Well Bottom: 60 ft.btoc

Well Volume: 2-inch well = water column x 0.163 gal/ft
3-inch well = water column x 0.367 gal/ft
4-inch well = water column x 0.652 gal/ft

Depth to Water: 3.75 ft. btoc

Water Column: N/A ft.

Well Volume Calculation: N/A gal

Time	Vol. Purged (Liter/Gal.)	Flow Rate (L/min)	Water Level (ft btoc)	pH	Conductivity (µS/cm)	Temperature (°C/°F)	Turbidity (NTU)	D. O. (mg/L)	O. R. P. (mV)
1102	initial	.25	4.15	8.12	375	21.68	3.4	11.38	197.3
1106	1	.25	4.21	7.76	2910	21.28	28.7	10.49	215.1
1110	2	.25	4.18	7.47	2459	21.69	180.2	5.69	219.8
1114	3	.25	4.18	7.41	2371	21.97	130.0	4.93	209.0
1118	4	.25	4.18	7.40	2362	22.06	67.0	4.53	202.4
1122	5	.25	4.18	7.37	2329	22.12	57.0	3.54	195.5
1126	6	.25	4.18	7.37	2348	22.18	50.2	3.77	190.7
1130	7	.25	4.18	7.37	2342	22.29	38.0	3.71	188.0
1134	8	.25	4.18	7.36	2341	22.27	13.2	3.72	187.0
1138	9	.25	4.18	7.36	2339	22.22	10.0	3.25	186.2

Begin Purge: 1102 Method of Purging "REDI-FLO" PUMP (Slow Purge) Purged Dry? NO

End Purge: 1134 Total Volume Purged: 8 L How Measured? GRADUATED CYLINDER

QA/QC Sample Collected Here? ☐ Duplicate ☐ Matrix Spike ☐ Equip. Blank ☒ No QA/QC Sample

Date and Time of Sample Collection: 6/29/01 @ 1145 Sample Number (s): 395-S13-011

Description of Purge Water: LIGHT BROWN / SEMI-TURBID / NO ODOR / NO SHEEN

Comments: NONE